



SEQUENCE LISTING

<110> ELLIOTT, VICKI S.
KHARE, REENA
EMERLING, BROOKE M.
KABLE, AMY E.
TRAN, UYEN K.
JIN, PEI
BECHA, SHANYA D.
MARQUIS, JOSEPH P
SWARNAKAR, ANITA
CHAWLA, NARINDER K.
RAMKUMAR, JAYALAXMI
HAFALIA, APRIL J.A.
LEE, SOO YEUN
JIANG, XIN
JACKSON, ALAN A.
RICHARDSON, THOMAS W.
BLAKE, JULIE J.
WANG, JONATHAN T.
CHIEN, DAVID
YANG, YONGHONG G.

<120> CELL ADHESION AND EXTRACELLULAR MATRIX PROTEINS

<130> 071949-9301

<140> 10/524,355

<141> 2005-07-12

<150> PCT/US03/25418

<151> 2003-08-12

<150> 60/403,781

<151> 2002-08-13

<150> 60/407,034

<151> 2002-08-30

<150> 60/410,566

<151> 2002-09-13

<150> 60/413,890

<151> 2002-09-25

<150> 60/413,482

<151> 2002-09-24

<150> 60/424,904

<151> 2002-11-08

<150> 60/426,222

<151> 2002-11-13

<160> 85

<170> PatentIn Ver. 3.3

<210> 1
 <211> 1327
 <212> PRT
 <213> Homo sapiens

<400> 1

Met	Glu	Gly	Asp	Arg	Val	Ala	Gly	Arg	Pro	Val	Leu	Ser	Ser	Leu	Pro
1				5					10					15	
Val	Leu	Leu	Leu	Leu	Gln	Leu	Leu	Met	Leu	Arg	Ala	Ala	Ala	Leu	His
			20					25						30	
Pro	Asp	Glu	Leu	Phe	Pro	His	Gly	Glu	Ser	Trp	Gly	Asp	Gln	Leu	Leu
		35					40					45			
Gln	Glu	Gly	Asp	Asp	Glu	Ser	Ser	Ala	Val	Val	Lys	Leu	Ala	Asn	Pro
	50					55					60				
Leu	His	Phe	Tyr	Glu	Ala	Arg	Phe	Ser	Asn	Leu	Tyr	Val	Gly	Thr	Asn
65					70					75					80
Gly	Ile	Ile	Ser	Thr	Gln	Asp	Phe	Pro	Arg	Glu	Thr	Gln	Tyr	Val	Asp
				85					90						95
Tyr	Asp	Phe	Pro	Thr	Asp	Phe	Pro	Ala	Ile	Ala	Pro	Phe	Leu	Ala	Asp
			100					105						110	
Ile	Asp	Thr	Ser	His	Gly	Arg	Gly	Arg	Val	Leu	Tyr	Arg	Glu	Asp	Thr
		115					120						125		
Ser	Pro	Ala	Val	Leu	Gly	Leu	Ala	Ala	Arg	Tyr	Val	Arg	Ala	Gly	Phe
	130					135					140				
Pro	Arg	Ser	Ala	Arg	Phe	Thr	Pro	Thr	His	Ala	Phe	Leu	Ala	Thr	Trp
145					150					155					160
Glu	Gln	Val	Gly	Ala	Tyr	Glu	Glu	Val	Lys	Arg	Gly	Ala	Leu	Pro	Ser
			165						170					175	
Gly	Glu	Leu	Asn	Thr	Phe	Gln	Ala	Val	Leu	Ala	Ser	Asp	Gly	Ser	Asp
			180					185					190		
Ser	Tyr	Ala	Leu	Phe	Leu	Tyr	Pro	Ala	Asn	Gly	Leu	Gln	Phe	Leu	Gly
		195					200					205			
Thr	Arg	Pro	Lys	Glu	Ser	Tyr	Asn	Val	Gln	Leu	Gln	Leu	Pro	Ala	Arg
	210					215					220				
Val	Gly	Phe	Cys	Arg	Gly	Glu	Ala	Asp	Asp	Leu	Lys	Ser	Glu	Gly	Pro
225					230					235					240
Tyr	Phe	Ser	Leu	Thr	Ser	Thr	Glu	Gln	Ser	Val	Lys	Asn	Leu	Tyr	Gln
				245					250					255	
Leu	Ser	Asn	Leu	Gly	Ile	Pro	Gly	Val	Trp	Ala	Phe	His	Ile	Gly	Ser
			260					265					270		

Thr Ser Pro Leu Asp Asn Val Arg Pro Ala Ala Val Gly Asp Leu Ser
 275 280 285
 Ala Ala His Ser Ser Val Pro Leu Gly Arg Ser Phe Ser His Ala Thr
 290 295 300
 Ala Leu Glu Ser Asp Tyr Asn Glu Asp Asn Leu Asp Tyr Tyr Asp Val
 305 310 315 320
 Asn Glu Glu Glu Ala Glu Tyr Leu Pro Gly Glu Pro Glu Glu Ala Leu
 325 330 335
 Asn Gly His Ser Ser Ile Asp Val Ser Phe Gln Ser Lys Val Asp Thr
 340 345 350
 Lys Pro Leu Glu Glu Ser Ser Thr Leu Asp Pro His Thr Lys Glu Gly
 355 360 365
 Thr Ser Leu Gly Glu Val Gly Gly Pro Asp Leu Lys Gly Gln Val Glu
 370 375 380
 Pro Trp Asp Glu Arg Glu Thr Arg Ser Pro Ala Pro Pro Glu Val Asp
 385 390 395 400
 Arg Asp Ser Leu Ala Pro Ser Trp Glu Thr Pro Pro Pro Tyr Pro Glu
 405 410 415
 Asn Gly Ser Ile Gln Pro Tyr Pro Asp Gly Gly Pro Val Pro Ser Glu
 420 425 430
 Met Asp Val Pro Pro Ala His Pro Glu Glu Glu Ile Val Leu Arg Ser
 435 440 445
 Tyr Pro Ala Ser Asp His Thr Thr Pro Leu Ser Arg Gly Thr Tyr Glu
 450 455 460
 Val Gly Leu Glu Asp Asn Ile Gly Ser Asn Thr Glu Val Phe Thr Tyr
 465 470 475 480
 Asn Ala Ala Asn Lys Glu Thr Cys Glu His Asn His Arg Gln Cys Ser
 485 490 495
 Arg His Ala Phe Cys Thr Asp Tyr Ala Thr Gly Phe Cys Cys His Cys
 500 505 510
 Gln Ser Lys Phe Tyr Gly Asn Gly Lys His Cys Leu Pro Glu Gly Ala
 515 520 525
 Pro His Arg Val Asn Gly Lys Val Ser Gly His Leu His Val Gly His
 530 535 540
 Thr Pro Val His Phe Thr Asp Val Asp Leu His Ala Tyr Ile Val Gly
 545 550 555 560
 Asn Asp Gly Arg Ala Tyr Thr Ala Ile Ser His Ile Pro Gln Pro Ala
 565 570 575

Ala	Gln	Ala	Leu	Leu	Pro	Leu	Thr	Pro	Ile	Gly	Gly	Leu	Phe	Gly	Trp	580	585	590
Leu	Phe	Ala	Leu	Glu	Lys	Pro	Gly	Ser	Glu	Asn	Gly	Phe	Ser	Leu	Ala	595	600	605
Gly	Ala	Ala	Phe	Thr	His	Asp	Met	Glu	Val	Thr	Phe	Tyr	Pro	Gly	Glu	610	615	620
Glu	Thr	Val	Arg	Ile	Thr	Gln	Thr	Ala	Glu	Gly	Leu	Asp	Pro	Glu	Asn	625	630	635
Tyr	Leu	Ser	Ile	Lys	Thr	Asn	Ile	Gln	Gly	Gln	Val	Pro	Tyr	Val	Pro	645	650	655
Ala	Asn	Phe	Thr	Ala	His	Ile	Ser	Pro	Tyr	Lys	Glu	Leu	Tyr	His	Tyr	660	665	670
Ser	Asp	Ser	Thr	Val	Thr	Ser	Thr	Ser	Ser	Arg	Asp	Tyr	Ser	Leu	Thr	675	680	685
Phe	Gly	Ala	Ile	Asn	Gln	Thr	Trp	Ser	Tyr	Arg	Ile	His	Gln	Asn	Ile	690	695	700
Thr	Tyr	Gln	Val	Cys	Arg	His	Ala	Pro	Arg	His	Pro	Ser	Phe	Pro	Thr	705	710	715
Thr	Gln	Gln	Leu	Asn	Val	Asp	Arg	Val	Phe	Ala	Leu	Tyr	Asn	Asp	Glu	725	730	735
Glu	Arg	Val	Leu	Arg	Phe	Ala	Val	Thr	Asn	Gln	Ile	Gly	Pro	Val	Lys	740	745	750
Glu	Asp	Ser	Asp	Pro	Thr	Pro	Val	Asn	Pro	Cys	Tyr	Asp	Gly	Ser	His	755	760	765
Met	Cys	Asp	Thr	Thr	Ala	Arg	Cys	His	Pro	Gly	Thr	Gly	Val	Asp	Tyr	770	775	780
Thr	Cys	Glu	Cys	Ala	Ser	Gly	Tyr	Gln	Gly	Asp	Gly	Arg	Asn	Cys	Val	785	790	795
Asp	Glu	Asn	Glu	Cys	Ala	Thr	Gly	Phe	His	Arg	Cys	Gly	Pro	Asn	Ser	805	810	815
Val	Cys	Ile	Asn	Leu	Pro	Gly	Ser	Tyr	Arg	Cys	Glu	Cys	Arg	Ser	Gly	820	825	830
Tyr	Glu	Phe	Ala	Asp	Asp	Arg	His	Thr	Cys	Ile	Tyr	Val	Asp	Glu	Cys	835	840	845
Ser	Glu	Asn	Arg	Cys	His	Pro	Ala	Ala	Thr	Cys	Tyr	Asn	Thr	Pro	Gly	850	855	860
Ser	Phe	Ser	Cys	Arg	Cys	Gln	Pro	Gly	Tyr	Tyr	Gly	Asp	Gly	Phe	Gln	865	870	875

Cys Ile Pro Asp Ser Thr Ser Ser Leu Thr Pro Cys Glu Gln Gln Gln
 885 890 895
 Arg His Ala Gln Ala Gln Tyr Ala Tyr Pro Gly Ala Arg Phe His Ile
 900 905 910
 Pro Gln Cys Asp Glu Gln Gly Asn Phe Leu Pro Leu Gln Cys His Gly
 915 920 925
 Ser Thr Gly Phe Cys Trp Cys Val Asp Pro Asp Gly His Glu Val Pro
 930 935 940
 Gly Thr Gln Thr Pro Pro Gly Ser Thr Pro Pro His Cys Gly Pro Ser
 945 950 955 960
 Pro Glu Pro Thr Gln Arg Pro Pro Thr Ile Cys Glu Arg Trp Arg Glu
 965 970 975
 Asn Leu Leu Glu His Tyr Gly Gly Thr Pro Arg Asp Asp Gln Tyr Val
 980 985 990
 Pro Gln Cys Asp Asp Leu Gly His Phe Ile Pro Leu Gln Cys His Gly
 995 1000 1005
 Lys Ser Asp Phe Cys Trp Cys Val Asp Lys Asp Gly Arg Glu Val Gln
 1010 1015 1020
 Gly Thr Arg Ser Gln Pro Gly Thr Thr Pro Ala Cys Ile Pro Thr Val
 1025 1030 1035 1040
 Ala Pro Pro Met Val Arg Pro Thr Pro Arg Pro Asp Val Thr Pro Pro
 1045 1050 1055
 Ser Val Gly Thr Phe Leu Leu Tyr Thr Gln Gly Gln Gln Ile Gly Tyr
 1060 1065 1070
 Leu Pro Leu Asn Gly Thr Arg Leu Gln Lys Asp Ala Ala Lys Thr Leu
 1075 1080 1085
 Leu Ser Leu His Gly Ser Ile Ile Val Gly Ile Asp Tyr Asp Cys Arg
 1090 1095 1100
 Glu Arg Met Val Tyr Trp Thr Asp Val Ala Gly Arg Thr Ile Ser Arg
 1105 1110 1115 1120
 Ala Gly Leu Glu Leu Gly Ala Glu Pro Glu Thr Ile Val Asn Ser Gly
 1125 1130 1135
 Leu Ile Ser Pro Glu Gly Leu Ala Ile Asp His Ile Arg Arg Thr Met
 1140 1145 1150
 Tyr Trp Thr Asp Ser Val Leu Asp Lys Ile Glu Ser Ala Leu Leu Asp
 1155 1160 1165
 Gly Ser Glu Arg Lys Val Leu Phe Tyr Thr Asp Leu Val Asn Pro Arg
 1170 1175 1180

Ala Ile Ala Val Asp Pro Ile Arg Gly Asn Leu Tyr Trp Thr Asp Trp
 1185 1190 1195 1200

Asn Arg Glu Ala Pro Lys Ile Glu Thr Ser Ser Leu Asp Gly Glu Asn
 1205 1210 1215

Arg Arg Ile Leu Ile Asn Thr Asp Ile Gly Leu Pro Asn Gly Leu Thr
 1220 1225 1230

Phe Asp Pro Phe Ser Lys Leu Leu Cys Trp Ala Asp Ala Gly Thr Lys
 1235 1240 1245

Lys Leu Glu Cys Thr Leu Pro Asp Gly Thr Gly Arg Arg Val Ile Gln
 1250 1255 1260

Asn Asn Leu Lys Tyr Pro Phe Ser Ile Val Ser Tyr Ala Asp His Phe
 1265 1270 1275 1280

Tyr His Thr Asp Trp Arg Arg Asp Gly Val Val Ser Val Asn Lys His
 1285 1290 1295

Ser Gly Gln Phe Thr Asp Glu Tyr Leu Pro Glu Gln Arg Ser His Leu
 1300 1305 1310

Tyr Gly Ile Thr Ala Val Tyr Pro Tyr Cys Pro Thr Gly Arg Lys
 1315 1320 1325

<210> 2
 <211> 2110
 <212> PRT
 <213> Homo sapiens

<400> 2
 Met Gly Ala Met Thr Gln Leu Leu Ala Gly Val Phe Leu Ala Phe Leu
 1 5 10 15

Ala Leu Ala Thr Glu Gly Gly Val Leu Lys Lys Val Ile Arg His Lys
 20 25 30

Arg Gln Ser Gly Val Asn Ala Thr Leu Pro Glu Glu Asn Gln Pro Val
 35 40 45

Val Phe Asn His Val Tyr Asn Ile Lys Leu Pro Val Gly Ser Gln Cys
 50 55 60

Ser Val Asp Leu Glu Ser Ala Ser Gly Glu Lys Asp Leu Ala Pro Pro
 65 70 75 80

Ser Glu Pro Ser Glu Ser Phe Gln Glu His Thr Val Asp Gly Glu Asn
 85 90 95

Gln Ile Val Phe Thr His Arg Ile Asn Ile Pro Arg Arg Ala Cys Gly
 100 105 110

Cys Ala Ala Ala Pro Asp Val Lys Glu Leu Leu Ser Arg Leu Glu Glu
 115 120 125

Leu	Glu	Asn	Leu	Val	Ser	Ser	Leu	Arg	Glu	Gln	Cys	Thr	Ala	Gly	Ala		
130						135					140						
Gly	Cys	Cys	Leu	Gln	Pro	Ala	Thr	Gly	Arg	Leu	Asp	Thr	Arg	Pro	Phe		
145					150					155					160		
Cys	Ser	Gly	Arg	Gly	Asn	Phe	Ser	Thr	Glu	Gly	Cys	Gly	Cys	Val	Cys		
				165					170					175			
Glu	Pro	Gly	Trp	Lys	Gly	Pro	Asn	Cys	Ser	Glu	Pro	Glu	Cys	Pro	Gly		
			180					185					190				
Asn	Cys	His	Leu	Arg	Gly	Arg	Cys	Ile	Asp	Gly	Gln	Cys	Ile	Cys	Asp		
		195					200					205					
Asp	Gly	Phe	Thr	Gly	Glu	Asp	Cys	Ser	Gln	Leu	Ala	Cys	Pro	Ser	Asp		
	210					215					220						
Cys	Asn	Asp	Gln	Gly	Lys	Cys	Val	Asn	Gly	Val	Cys	Ile	Cys	Phe	Glu		
225					230					235					240		
Gly	Tyr	Ala	Gly	Ala	Asp	Cys	Ser	Arg	Glu	Ile	Cys	Pro	Val	Pro	Cys		
				245					250					255			
Ser	Glu	Glu	His	Gly	Thr	Cys	Val	Asp	Gly	Leu	Cys	Val	Cys	His	Asp		
			260					265					270				
Gly	Phe	Ala	Gly	Asp	Asp	Cys	Asn	Lys	Pro	Leu	Cys	Leu	Asn	Asn	Cys		
		275					280					285					
Tyr	Asn	Arg	Gly	Arg	Cys	Val	Glu	Asn	Glu	Cys	Val	Cys	Asp	Glu	Gly		
	290					295					300						
Phe	Thr	Gly	Glu	Asp	Cys	Ser	Glu	Leu	Ile	Cys	Pro	Asn	Asp	Cys	Phe		
305					310					315					320		
Asp	Arg	Gly	Arg	Cys	Ile	Asn	Gly	Thr	Cys	Tyr	Cys	Glu	Glu	Gly	Phe		
				325					330					335			
Thr	Gly	Glu	Asp	Cys	Gly	Lys	Pro	Thr	Cys	Pro	His	Ala	Cys	His	Thr		
			340					345					350				
Gln	Gly	Arg	Cys	Glu	Glu	Gly	Gln	Cys	Val	Cys	Asp	Glu	Gly	Phe	Ala		
		355					360					365					
Gly	Val	Asp	Cys	Ser	Glu	Lys	Arg	Cys	Pro	Ala	Asp	Cys	His	Asn	Arg		
	370					375					380						
Gly	Arg	Cys	Val	Asp	Gly	Arg	Cys	Glu	Cys	Asp	Asp	Gly	Phe	Thr	Gly		
385					390					395					400		
Ala	Asp	Cys	Gly	Glu	Leu	Lys	Cys	Pro	Asn	Gly	Cys	Ser	Gly	His	Gly		
				405					410					415			
Arg	Cys	Val	Asn	Gly	Gln	Cys	Val	Cys	Asp	Glu	Gly	Tyr	Thr	Gly	Glu		
			420					425						430			

Asp Cys Ser Gln Leu Arg Cys Pro Asn Asp Cys His Ser Arg Gly Arg
 435 440 445
 Cys Val Glu Gly Lys Cys Val Cys Glu Gln Gly Phe Lys Gly Tyr Asp
 450 455 460
 Cys Ser Asp Ile Ser Cys Pro Asn Asp Cys His Gln His Gly Arg Cys
 465 470 475 480
 Val Asn Gly Met Cys Val Cys Asp Asp Gly Tyr Thr Gly Glu Asp Cys
 485 490 495
 Arg Asp Arg Gln Cys Pro Arg Asp Cys Ser Asn Arg Gly Leu Cys Val
 500 505 510
 Asp Gly Gln Cys Val Cys Glu Asp Gly Phe Thr Gly Pro Asp Cys Ala
 515 520 525
 Glu Leu Ser Cys Pro Asn Asp Cys His Gly Arg Gly Arg Cys Val Asn
 530 535 540
 Gly Gln Cys Val Cys His Glu Gly Phe Met Gly Lys Asp Cys Lys Glu
 545 550 555 560
 Gln Arg Cys Pro Ser Asp Cys His Gly Gln Gly Arg Cys Val Asp Gly
 565 570 575
 Gln Cys Ile Cys His Glu Gly Phe Thr Gly Leu Asp Cys Gly Gln His
 580 585 590
 Ser Cys Pro Ser Asp Cys Asn Asn Leu Gly Gln Cys Val Ser Gly Arg
 595 600 605
 Cys Ile Cys Asn Glu Gly Tyr Ser Gly Glu Asp Cys Ser Glu Val Ser
 610 615 620
 Pro Pro Lys Asp Leu Val Val Thr Glu Val Thr Glu Glu Thr Val Asn
 625 630 635 640
 Leu Ala Trp Asp Asn Glu Met Arg Val Thr Glu Tyr Leu Val Val Tyr
 645 650 655
 Thr Pro Thr His Glu Gly Gly Leu Glu Met Gln Phe Arg Val Pro Gly
 660 665 670
 Asp Gln Thr Ser Thr Ile Ile Gln Glu Leu Glu Pro Gly Val Glu Tyr
 675 680 685
 Phe Ile Arg Val Phe Ala Ile Leu Glu Asn Lys Lys Ser Ile Pro Val
 690 695 700
 Ser Ala Arg Val Ala Thr Tyr Leu Pro Ala Pro Glu Gly Leu Lys Phe
 705 710 715 720
 Lys Ser Ile Lys Glu Thr Ser Val Glu Val Glu Trp Asp Pro Leu Asp
 725 730 735

Ile	Ala	Phe	Glu	Thr	Trp	Glu	Ile	Ile	Phe	Arg	Asn	Met	Asn	Lys	Glu	740	745	750
Asp	Glu	Gly	Glu	Ile	Thr	Lys	Ser	Leu	Arg	Arg	Pro	Glu	Thr	Ser	Tyr	755	760	765
Arg	Gln	Thr	Gly	Leu	Ala	Pro	Gly	Gln	Glu	Tyr	Glu	Ile	Ser	Leu	His	770	775	780
Ile	Val	Lys	Asn	Asn	Thr	Arg	Gly	Pro	Gly	Leu	Lys	Arg	Val	Thr	Thr	785	790	795
Thr	Arg	Leu	Asp	Ala	Pro	Ser	Gln	Ile	Glu	Val	Lys	Asp	Val	Thr	Asp	805	810	815
Thr	Thr	Ala	Leu	Ile	Thr	Trp	Phe	Lys	Pro	Leu	Ala	Glu	Ile	Asp	Gly	820	825	830
Ile	Glu	Leu	Thr	Tyr	Gly	Ile	Lys	Asp	Val	Pro	Gly	Asp	Arg	Thr	Thr	835	840	845
Ile	Asp	Leu	Thr	Glu	Asp	Glu	Asn	Gln	Tyr	Ser	Ile	Gly	Asn	Leu	Lys	850	855	860
Pro	Asp	Thr	Glu	Tyr	Glu	Val	Ser	Leu	Ile	Ser	Arg	Arg	Gly	Asp	Met	865	870	875
Ser	Ser	Asn	Pro	Ala	Lys	Glu	Thr	Phe	Thr	Thr	Gly	Leu	Asp	Ala	Pro	885	890	895
Arg	Asn	Leu	Arg	Arg	Val	Ser	Gln	Thr	Asp	Asn	Ser	Ile	Thr	Leu	Glu	900	905	910
Trp	Arg	Asn	Gly	Lys	Ala	Ala	Ile	Asp	Ser	Tyr	Arg	Ile	Lys	Tyr	Ala	915	920	925
Pro	Ile	Ser	Gly	Gly	Asp	His	Ala	Glu	Val	Asp	Val	Pro	Lys	Ser	Gln	930	935	940
Gln	Ala	Thr	Thr	Lys	Thr	Thr	Leu	Thr	Gly	Leu	Arg	Pro	Gly	Thr	Glu	945	950	955
Tyr	Gly	Ile	Gly	Val	Ser	Ala	Val	Lys	Glu	Asp	Lys	Glu	Ser	Asn	Pro	965	970	975
Ala	Thr	Ile	Asn	Ala	Ala	Thr	Glu	Leu	Asp	Thr	Pro	Lys	Asp	Leu	Gln	980	985	990
Val	Ser	Glu	Thr	Ala	Glu	Thr	Ser	Leu	Thr	Leu	Leu	Trp	Lys	Thr	Pro	995	1000	1005
Leu	Ala	Lys	Phe	Asp	Arg	Tyr	Arg	Leu	Asn	Tyr	Ser	Leu	Pro	Thr	Gly	1010	1015	1020
Gln	Trp	Val	Gly	Val	Gln	Leu	Pro	Arg	Asn	Thr	Thr	Ser	Tyr	Val	Leu	1025	1030	1035

Arg Gly Leu Glu Pro Gly Gln Glu Tyr Asn Val Leu Leu Thr Ala Glu
 1045 1050 1055
 Lys Gly Arg His Lys Ser Lys Pro Ala Arg Val Lys Ala Ser Thr Glu
 1060 1065 1070
 Arg Ala Pro Glu Leu Glu Asn Leu Thr Val Thr Glu Val Gly Trp Asp
 1075 1080 1085
 Gly Leu Arg Leu Asn Trp Thr Ala Ala Asp Gln Ala Tyr Glu His Phe
 1090 1095 1100
 Ile Ile Gln Val Gln Glu Ala Asn Lys Val Glu Ala Ala Arg Asn Leu
 1105 1110 1115 1120
 Thr Val Pro Gly Ser Leu Arg Ala Val Asp Ile Pro Gly Leu Lys Ala
 1125 1130 1135
 Ala Thr Pro Tyr Thr Val Ser Ile Tyr Gly Ser Phe Gln Gly Tyr Arg
 1140 1145 1150
 Thr Pro Val Leu Ser Ala Glu Ala Ser Thr Gly Glu Thr Pro Asn Leu
 1155 1160 1165
 Gly Glu Val Val Val Ala Glu Val Gly Trp Asp Ala Leu Lys Leu Asn
 1170 1175 1180
 Trp Thr Ala Pro Glu Gly Ala Tyr Glu Tyr Phe Phe Ile Gln Val Gln
 1185 1190 1195 1200
 Glu Ala Asp Thr Val Glu Ala Ala Gln Asn Leu Thr Val Pro Gly Gly
 1205 1210 1215
 Leu Arg Ser Thr Asp Leu Pro Gly Leu Lys Ala Ala Thr His Tyr Thr
 1220 1225 1230
 Ile Thr Ile Arg Gly Val Thr Gln Asp Phe Ser Thr Thr Pro Leu Ser
 1235 1240 1245
 Val Glu Val Leu Thr Glu Asp Leu Pro Gln Leu Gly Asp Leu Ala Val
 1250 1255 1260
 Ser Glu Val Gly Trp Asp Gly Leu Arg Leu Asn Trp Thr Ala Ala Asp
 1265 1270 1275 1280
 Asn Ala Tyr Glu His Phe Val Ile Gln Val Gln Glu Val Asn Lys Val
 1285 1290 1295
 Glu Ala Ala Gln Asn Leu Thr Leu Pro Gly Ser Leu Arg Ala Val Asp
 1300 1305 1310
 Ile Pro Gly Leu Glu Ala Ala Thr Pro Tyr Arg Val Ser Ile Tyr Gly
 1315 1320 1325
 Val Ile Arg Gly Tyr Arg Thr Pro Val Leu Ser Ala Glu Ala Ser Thr
 1330 1335 1340

Ala Lys Glu Pro Glu Ile Gly Asn Leu Asn Val Ser Asp Ile Thr Pro
 1345 1350 1355 1360
 Glu Ser Phe Asn Leu Ser Trp Met Ala Thr Asp Gly Ile Phe Glu Thr
 1365 1370 1375
 Phe Thr Ile Glu Ile Ile Asp Ser Asn Arg Leu Leu Glu Thr Val Glu
 1380 1385 1390
 Tyr Asn Ile Ser Gly Ala Glu Arg Thr Ala His Ile Ser Gly Leu Pro
 1395 1400 1405
 Pro Ser Thr Asp Phe Ile Val Tyr Leu Ser Gly Leu Ala Pro Ser Ile
 1410 1415 1420
 Arg Thr Lys Thr Ile Ser Ala Thr Ala Thr Thr Glu Ala Leu Pro Leu
 1425 1430 1435 1440
 Leu Glu Asn Leu Thr Ile Ser Asp Ile Asn Pro Tyr Gly Phe Thr Val
 1445 1450 1455
 Ser Trp Met Ala Ser Glu Asn Ala Phe Asp Ser Phe Leu Val Thr Val
 1460 1465 1470
 Val Asp Ser Gly Lys Leu Leu Asp Pro Gln Glu Phe Thr Leu Ser Gly
 1475 1480 1485
 Thr Gln Arg Lys Leu Glu Leu Arg Gly Leu Ile Thr Gly Ile Gly Tyr
 1490 1495 1500
 Glu Val Met Val Ser Gly Phe Thr Gln Gly His Gln Thr Lys Pro Leu
 1505 1510 1515 1520
 Arg Ala Glu Ile Val Thr Glu Ala Glu Pro Glu Val Asp Asn Leu Leu
 1525 1530 1535
 Val Ser Asp Ala Thr Pro Asp Gly Phe Arg Leu Ser Trp Thr Ala Asp
 1540 1545 1550
 Glu Gly Val Phe Asp Asn Phe Val Leu Lys Ile Arg Asp Thr Lys Lys
 1555 1560 1565
 Gln Ser Glu Pro Leu Glu Ile Thr Leu Leu Ala Pro Glu Arg Thr Arg
 1570 1575 1580
 Asp Ile Thr Gly Leu Arg Glu Ala Thr Glu Tyr Glu Ile Glu Leu Tyr
 1585 1590 1595 1600
 Gly Ile Ser Lys Gly Arg Arg Ser Gln Thr Val Ser Ala Ile Ala Thr
 1605 1610 1615
 Thr Ala Met Gly Ser Pro Lys Glu Val Ile Phe Ser Asp Ile Thr Glu
 1620 1625 1630
 Asn Ser Ala Thr Val Ser Trp Arg Ala Pro Thr Ala Gln Val Glu Ser
 1635 1640 1645

Phe Arg Ile Thr Tyr Val Pro Ile Thr Gly Gly Thr Pro Ser Met Val
 1650 1655 1660
 Thr Val Asp Gly Thr Lys Thr Gln Thr Arg Leu Val Lys Leu Ile Pro
 1665 1670 1675 1680
 Gly Val Glu Tyr Leu Val Ser Ile Ile Ala Met Lys Gly Phe Glu Glu
 1685 1690 1695
 Ser Glu Pro Val Ser Gly Ser Phe Thr Thr Ala Leu Asp Gly Pro Ser
 1700 1705 1710
 Gly Leu Val Thr Ala Asn Ile Thr Asp Ser Glu Ala Leu Ala Arg Trp
 1715 1720 1725
 Gln Pro Ala Ile Ala Thr Val Asp Ser Tyr Val Ile Ser Tyr Thr Gly
 1730 1735 1740
 Glu Lys Val Pro Glu Ile Thr Arg Thr Val Ser Gly Asn Thr Val Glu
 1745 1750 1755 1760
 Tyr Ala Leu Thr Asp Leu Glu Pro Ala Thr Glu Tyr Thr Leu Arg Ile
 1765 1770 1775
 Phe Ala Glu Lys Gly Pro Gln Lys Ser Ser Thr Ile Thr Ala Lys Phe
 1780 1785 1790
 Thr Thr Asp Leu Asp Ser Pro Arg Asp Leu Thr Ala Thr Glu Val Gln
 1795 1800 1805
 Ser Glu Thr Ala Leu Leu Thr Trp Arg Pro Pro Arg Ala Ser Val Thr
 1810 1815 1820
 Gly Tyr Leu Leu Val Tyr Glu Ser Val Asp Gly Thr Val Lys Glu Val
 1825 1830 1835 1840
 Ile Val Gly Pro Asp Thr Thr Ser Tyr Ser Leu Ala Asp Leu Ser Pro
 1845 1850 1855
 Ser Thr His Tyr Thr Ala Lys Ile Gln Ala Leu Asn Gly Pro Leu Arg
 1860 1865 1870
 Ser Asn Met Ile Gln Thr Ile Phe Thr Thr Ile Gly Leu Leu Tyr Pro
 1875 1880 1885
 Phe Pro Lys Asp Cys Ser Gln Ala Met Leu Asn Gly Asp Thr Thr Ser
 1890 1895 1900
 Gly Leu Tyr Thr Ile Tyr Leu Asn Gly Asp Lys Ala Glu Ala Leu Glu
 1905 1910 1915 1920
 Val Phe Cys Asp Met Thr Ser Asp Gly Gly Gly Trp Ile Val Phe Leu
 1925 1930 1935
 Arg Arg Lys Asn Gly Arg Glu Asn Phe Tyr Gln Asn Trp Lys Ala Tyr
 1940 1945 1950

Ala Ala Gly Phe Gly Asp Arg Arg Glu Glu Phe Trp Leu Gly Leu Asp
 1955 1960 1965

Asn Leu Asn Lys Ile Thr Ala Gln Gly Gln Tyr Glu Leu Arg Val Asp
 1970 1975 1980

Leu Arg Asp His Gly Glu Thr Ala Phe Ala Val Tyr Asp Lys Phe Ser
 1985 1990 1995 2000

Val Gly Asp Ala Lys Thr Arg Tyr Lys Leu Lys Val Glu Gly Tyr Ser
 2005 2010 2015

Gly Thr Ala Gly Asp Ser Met Ala Tyr His Asn Gly Arg Ser Phe Ser
 2020 2025 2030

Thr Phe Asp Lys Asp Thr Asp Ser Ala Ile Thr Asn Cys Ala Leu Ser
 2035 2040 2045

Tyr Lys Gly Ala Phe Trp Tyr Arg Asn Cys His Arg Val Asn Leu Met
 2050 2055 2060

Gly Arg Tyr Gly Asp Asn Asn His Ser Gln Gly Val Asn Trp Phe His
 2065 2070 2075 2080

Trp Lys Gly His Glu His Ser Ile Gln Phe Ala Glu Met Lys Leu Arg
 2085 2090 2095

Pro Ser Asn Phe Arg Asn Leu Glu Gly Arg Arg Lys Arg Ala
 2100 2105 2110

<210> 3
 <211> 393
 <212> PRT
 <213> Homo sapiens

<400> 3
 Met Val Pro Ser Ser Pro Arg Ala Leu Phe Leu Leu Leu Leu Ile Leu
 1 5 10 15

Ala Cys Pro Glu Pro Arg Ala Ser Gln Asn Cys Leu Ser Lys Gln Gln
 20 25 30

Leu Leu Ser Ala Ile Arg Gln Leu Gln Gln Leu Leu Lys Gly Gln Glu
 35 40 45

Thr Arg Phe Ala Glu Gly Ile Arg His Met Lys Ser Arg Leu Ala Ala
 50 55 60

Leu Gln Asn Ser Val Gly Arg Val Gly Pro Asp Ala Leu Pro Val Ser
 65 70 75 80

Cys Pro Ala Leu Asn Thr Pro Ala Asp Gly Arg Lys Phe Gly Ser Lys
 85 90 95

Tyr Leu Val Asp His Glu Val His Phe Thr Cys Asn Pro Gly Phe Arg
 100 105 110

Leu Val Gly Pro Ser Ser Val Val Cys Leu Pro Asn Gly Thr Trp Thr
 115 120 125
 Gly Glu Gln Pro His Cys Arg Gly Ile Ser Glu Cys Ser Ser Gln Pro
 130 135 140
 Cys Gln Asn Gly Gly Thr Cys Val Glu Gly Val Asn Gln Tyr Arg Cys
 145 150 155 160
 Ile Cys Pro Pro Gly Arg Thr Gly Asn Arg Cys Gln His Gln Ala Gln
 165 170 175
 Thr Ala Ala Pro Glu Gly Ser Val Ala Gly Asp Ser Ala Phe Ser Arg
 180 185 190
 Ala Pro Arg Cys Ala Gln Val Glu Arg Ala Gln His Cys Ser Cys Glu
 195 200 205
 Ala Gly Phe His Leu Ser Gly Ala Ala Gly Asp Ser Val Cys Gln Asp
 210 215 220
 Val Asp Glu Cys Val Gly Leu Gln Pro Val Cys Pro Gln Gly Thr Thr
 225 230 235 240
 Cys Ile Asn Thr Gly Gly Ser Phe Gln Cys Val Ser Pro Glu Cys Pro
 245 250 255
 Glu Gly Ser Gly Asn Val Ser Tyr Val Lys Thr Ser Pro Phe Gln Cys
 260 265 270
 Glu Arg Asn Pro Cys Pro Met Asp Ser Arg Pro Cys Arg His Leu Pro
 275 280 285
 Lys Thr Ile Ser Phe His Tyr Leu Ser Leu Pro Ser Asn Leu Lys Thr
 290 295 300
 Pro Ile Thr Leu Phe Arg Met Ala Thr Ala Ser Ala Pro Gly Arg Ala
 305 310 315 320
 Gly Pro Asn Ser Leu Arg Phe Gly Ile Val Gly Gly Asn Ser Arg Gly
 325 330 335
 His Phe Val Met Gln Arg Ser Asp Arg Gln Thr Gly Asp Leu Ile Leu
 340 345 350
 Val Gln Asn Leu Glu Gly Pro Gln Thr Leu Glu Val Asp Val Asp Met
 355 360 365
 Ser Glu Tyr Leu Asp Arg Ser Phe Gln Ala Asn His Val Ser Lys Val
 370 375 380
 Thr Ile Phe Val Ser Pro Tyr Asp Phe
 385 390

<210> 4
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 4
 Met Ser Leu Leu Gly Pro Lys Val Leu Leu Phe Leu Ala Ala Phe Ile
 1 5 10 15
 Ile Thr Ser Asp Trp Ile Pro Leu Gly Val Asn Ser Gln Arg Gly Asp
 20 25 30
 Asp Val Thr Gln Ala Thr Pro Glu Thr Phe Thr Glu Asp Pro Asn Leu
 35 40 45
 Val Asn Asp Pro Ala Thr Asp Glu Thr Glu Cys Trp Asp Glu Lys Phe
 50 55 60
 Thr Cys Thr Arg Leu Tyr Ser Val His Arg Pro Val Lys Gln Cys Ile
 65 70 75 80
 His Gln Leu Cys Phe Thr Ser Leu Arg Arg Met Tyr Ile Val Asn Lys
 85 90 95
 Glu Ile Cys Ser Arg Leu Val Cys Lys Glu His Glu Ala Met Lys Asp
 100 105 110
 Glu Leu Cys Arg Gln Met Ala Gly Leu Pro Pro Arg Arg Leu Arg Arg
 115 120 125
 Ser Asn Tyr Phe Arg Leu Pro Pro Cys Glu Asn Val Asp Leu Gln Arg
 130 135 140
 Pro Asn Gly Leu
 145

<210> 5
 <211> 343
 <212> PRT
 <213> Homo sapiens

<400> 5
 Met Pro Arg Pro Arg Leu Leu Ala Ala Leu Cys Gly Ala Leu Leu Cys
 1 5 10 15
 Ala Pro Ser Leu Leu Val Ala Leu Glu Cys Val Glu Pro Leu Gly Leu
 20 25 30
 Glu Asn Gly Asn Ile Ala Asn Ser Gln Ile Ala Ala Ser Ser Val Arg
 35 40 45
 Val Thr Phe Leu Gly Leu Gln His Trp Val Pro Glu Leu Ala Arg Leu
 50 55 60
 Asn Arg Ala Gly Met Val Asn Ala Trp Thr Pro Ser Ser Asn Asp Asp
 65 70 75 80

Asn Pro Trp Ile Gln Val Asn Leu Leu Arg Arg Met Trp Val Thr Gly
 85 90 95
 Val Val Thr Gln Gly Ala Ser Arg Leu Ala Ser His Glu Tyr Leu Lys
 100 105 110
 Ala Phe Lys Val Ala Tyr Ser Leu Asn Gly His Glu Phe Asp Phe Ile
 115 120 125
 His Asp Val Asn Lys Lys His Lys Glu Phe Val Gly Asn Trp Asn Lys
 130 135 140
 Asn Ala Val His Val Asn Leu Phe Glu Thr Pro Val Glu Ala Gln Tyr
 145 150 155 160
 Val Arg Leu Tyr Pro Thr Ser Cys His Thr Ala Cys Thr Leu Arg Phe
 165 170 175
 Glu Leu Leu Gly Cys Glu Leu Asn Gly Cys Ala Asn Pro Leu Gly Leu
 180 185 190
 Lys Asn Asn Ser Ile Pro Asp Lys Gln Ile Thr Ala Ser Ser Ser Tyr
 195 200 205
 Lys Thr Trp Gly Leu His Leu Phe Ser Trp Asn Pro Ser Tyr Ala Arg
 210 215 220
 Leu Asp Lys Gln Gly Asn Phe Asn Ala Trp Val Ala Gly Ser Tyr Gly
 225 230 235 240
 Asn Asp Gln Trp Leu Gln Val Asp Leu Gly Ser Ser Lys Glu Val Thr
 245 250 255
 Gly Ile Ile Thr Gln Gly Ala Arg Asn Phe Gly Ser Val Gln Phe Val
 260 265 270
 Ala Ser Tyr Lys Val Ala Tyr Ser Asn Asp Ser Ala Asn Trp Thr Glu
 275 280 285
 Tyr Gln Asp Pro Arg Thr Gly Ser Ser Lys Ile Phe Pro Gly Asn Trp
 290 295 300
 Asp Asn His Ser His Lys Lys Asn Leu Phe Glu Thr Pro Ile Leu Ala
 305 310 315 320
 Arg Tyr Val Arg Ile Leu Pro Val Ala Trp His Asn Arg Ile Ala Leu
 325 330 335
 Arg Leu Glu Leu Leu Gly Cys
 340

<210> 6

<211> 110

<212> PRT

<213> Homo sapiens

<400> 6

Met Leu Pro Cys Ala Ser Cys Leu Pro Gly Ser Leu Leu Leu Trp Ala
 1 5 10 15
 Leu Leu Leu Leu Leu Leu Gly Ser Ala Ser Pro Gln Asp Ser Glu Glu
 20 25 30
 Pro Asp Ser Tyr Thr Glu Cys Thr Asp Gly Tyr Glu Trp Asp Pro Asp
 35 40 45
 Ser Gln His Cys Arg Gly Val Cys Ala Trp Gly Thr Lys His Pro Gln
 50 55 60
 Glu Pro Gly Lys Gly Leu Ile Ala Ala Phe Gln Glu Thr Ala Pro Pro
 65 70 75 80
 Pro Arg Thr Ala Val Gly Ala Gln Gln Pro Val Leu Cys Pro Ala Leu
 85 90 95
 Leu His Arg Gly Gln Leu Trp Leu Ser Gly Gly Gln Leu Ser
 100 105 110

<210> 7

<211> 724

<212> PRT

<213> Homo sapiens

<400> 7

Met Gly Ile Glu Leu Leu Cys Leu Phe Phe Leu Phe Leu Gly Arg Asn
 1 5 10 15
 Asp His Val Gln Gly Gly Cys Ala Leu Gly Gly Ala Glu Thr Cys Glu
 20 25 30
 Asp Cys Leu Leu Ile Gly Pro Gln Cys Ala Trp Cys Ala Gln Glu Asn
 35 40 45
 Phe Thr His Pro Ser Gly Val Gly Glu Arg Cys Asp Thr Pro Ala Asn
 50 55 60
 Leu Leu Ala Lys Gly Cys Gln Leu Asn Phe Ile Glu Asn Pro Val Ser
 65 70 75 80
 Gln Val Glu Ile Leu Lys Asn Lys Pro Leu Ser Val Gly Arg Gln Lys
 85 90 95
 Asn Ser Ser Asp Ile Val Gln Ile Ala Pro Gln Ser Leu Ile Leu Lys
 100 105 110
 Leu Arg Pro Gly Gly Ala Gln Thr Leu Gln Val His Val Arg Gln Thr
 115 120 125
 Glu Asp Tyr Pro Val Asp Leu Tyr Tyr Leu Met Asp Leu Ser Ala Ser
 130 135 140
 Met Asp Asp Asp Leu Asn Thr Ile Lys Glu Leu Gly Ser Arg Leu Ser
 145 150 155 160

Lys Glu Met Ser Lys Leu Thr Ser Asn Phe Arg Leu Gly Phe Gly Ser
 165 170 175
 Phe Val Glu Lys Pro Val Ser Pro Phe Val Lys Thr Thr Pro Glu Glu
 180 185 190
 Ile Ala Asn Pro Cys Ser Ser Ile Pro Tyr Phe Cys Leu Pro Thr Phe
 195 200 205
 Gly Phe Lys His Ile Leu Pro Leu Thr Asn Asp Ala Glu Arg Phe Asn
 210 215 220
 Glu Ile Val Lys Asn Gln Lys Ile Ser Ala Asn Ile Asp Thr Pro Glu
 225 230 235 240
 Gly Gly Phe Asp Ala Ile Met Gln Ala Ala Val Cys Lys Glu Lys Ile
 245 250 255
 Gly Trp Arg Asn Asp Ser Leu His Leu Leu Val Phe Val Ser Asp Ala
 260 265 270
 Asp Ser His Phe Gly Met Asp Ser Lys Leu Ala Gly Ile Val Ile Pro
 275 280 285
 Asn Asp Gly Leu Cys His Leu Asp Ser Lys Asn Glu Tyr Ser Met Ser
 290 295 300
 Thr Val Leu Glu Tyr Pro Thr Ile Gly Gln Leu Ile Asp Lys Leu Val
 305 310 315 320
 Gln Asn Asn Val Leu Leu Ile Phe Ala Val Thr Gln Glu Gln Val His
 325 330 335
 Leu Tyr Glu Asn Tyr Ala Lys Leu Ile Pro Gly Ala Thr Val Gly Leu
 340 345 350
 Leu Gln Lys Asp Ser Gly Asn Ile Leu Gln Leu Ile Ile Ser Ala Tyr
 355 360 365
 Glu Asp Leu Arg Ser Glu Val Glu Leu Glu Val Leu Gly Asp Thr Glu
 370 375 380
 Gly Leu Asn Leu Ser Phe Thr Ala Ile Cys Asn Asn Gly Thr Leu Phe
 385 390 395 400
 Gln His Gln Lys Lys Cys Ser His Met Lys Val Gly Asp Thr Ala Ser
 405 410 415
 Phe Ser Val Thr Val Asn Ile Pro His Cys Glu Arg Arg Ser Arg His
 420 425 430
 Ile Ile Ile Lys Pro Val Gly Leu Gly Asp Ala Leu Glu Leu Leu Val
 435 440 445
 Ser Pro Glu Cys Asn Cys Asp Cys Gln Lys Glu Val Glu Val Asn Ser
 450 455 460

Ser Lys Cys His His Gly Asn Gly Ser Phe Gln Cys Gly Val Cys Ala
 465 470 475 480
 Cys His Pro Gly His Met Gly Pro Arg Cys Asn Gly Asp Cys Asp Cys
 485 490 495
 Gly Glu Cys Val Cys Arg Ser Gly Trp Thr Gly Glu Tyr Cys Asn Cys
 500 505 510
 Thr Thr Ser Thr Asp Ser Cys Val Ser Glu Asp Gly Val Leu Cys Ser
 515 520 525
 Gly Arg Gly Asp Cys Val Cys Gly Lys Cys Val Cys Thr Asn Pro Gly
 530 535 540
 Ala Ser Gly Pro Thr Cys Glu Arg Cys Pro Thr Cys Gly Asp Pro Cys
 545 550 555 560
 Asn Ser Lys Arg Ser Cys Ile Glu Cys His Leu Ser Ala Ala Gly Gln
 565 570 575
 Ala Arg Glu Glu Cys Val Asp Lys Cys Lys Leu Ala Gly Ala Thr Ile
 580 585 590
 Ser Glu Glu Glu Asp Phe Ser Lys Asp Gly Ser Val Ser Cys Ser Leu
 595 600 605
 Gln Gly Glu Asn Glu Cys Leu Ile Thr Phe Leu Ile Thr Thr Asp Asn
 610 615 620
 Glu Gly Lys Thr Ile Ile His Ser Ile Asn Glu Lys Asp Cys Pro Lys
 625 630 635 640
 Pro Pro Asn Ile Pro Met Ile Met Leu Gly Val Ser Leu Ala Ile Leu
 645 650 655
 Leu Ile Gly Val Val Leu Leu Cys Ile Trp Lys Leu Leu Val Ser Phe
 660 665 670
 His Asp Arg Lys Glu Val Ala Lys Phe Glu Ala Glu Arg Ser Lys Ala
 675 680 685
 Lys Trp Gln Thr Gly Thr Asn Pro Leu Tyr Arg Gly Ser Thr Ser Thr
 690 695 700
 Phe Lys Asn Val Thr Tyr Lys His Arg Glu Lys Gln Lys Val Asp Leu
 705 710 715 720
 Ser Thr Asp Cys

<210> 8

<211> 445

<212> PRT

<213> Homo sapiens

<400> 8

Met Gly Gly Pro Arg Ala Trp Ala Leu Leu Cys Leu Gly Leu Leu Leu
 1 5 10 15
 Pro Gly Gly Gly Ala Ala Trp Ser Ile Gly Ala Ala Pro Phe Ser Gly
 20 25 30
 Arg Arg Asn Trp Cys Ser Tyr Val Val Thr Arg Thr Ile Ser Cys His
 35 40 45
 Val Gln Asn Gly Thr Tyr Leu Gln Arg Val Leu Gln Asn Cys Pro Trp
 50 55 60
 Pro Met Ser Cys Pro Gly Ser Ser Tyr Arg Thr Val Val Arg Pro Thr
 65 70 75 80
 Tyr Lys Val Met Tyr Lys Ile Val Thr Ala Arg Glu Trp Arg Cys Cys
 85 90 95
 Pro Gly His Ser Gly Val Ser Cys Glu Glu Val Ala Gly Ser Ser Ala
 100 105 110
 Ser Leu Glu Pro Met Trp Ser Gly Ser Thr Met Arg Arg Met Ala Leu
 115 120 125
 Gln Pro Thr Ala Phe Ser Gly Cys Leu Asn Cys Ser Lys Val Ser Glu
 130 135 140
 Leu Thr Glu Arg Leu Lys Val Leu Glu Ala Lys Met Thr Met Leu Thr
 145 150 155 160
 Val Ile Glu Gln Pro Val Pro Pro Thr Pro Ala Thr Pro Glu Asp Pro
 165 170 175
 Ala Pro Leu Trp Gly Pro Pro Pro Ala Gln Gly Ser Pro Gly Asp Gly
 180 185 190
 Gly Leu Gln Asp Gln Val Gly Ala Trp Gly Leu Pro Gly Pro Thr Gly
 195 200 205
 Pro Lys Gly Asp Ala Gly Ser Arg Gly Pro Met Gly Met Arg Gly Pro
 210 215 220
 Pro Gly Pro Gln Gly Pro Pro Gly Ser Pro Gly Arg Ala Gly Ala Val
 225 230 235 240
 Gly Thr Pro Gly Glu Arg Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly
 245 250 255
 Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His Ala Arg Ile Ser
 260 265 270
 Gln His Gly Asp Pro Leu Leu Ser Asn Thr Phe Thr Glu Thr Asn Asn
 275 280 285
 His Trp Pro Gln Gly Pro Thr Gly Pro Pro Gly Pro Pro Gly Pro Met
 290 295 300

Gly Pro Pro Gly Pro Pro Gly Pro Thr Gly Val Pro Gly Ser Pro Gly
 305 310 315 320
 His Ile Gly Pro Pro Gly Pro Thr Gly Pro Lys Gly Ile Ser Gly His
 325 330 335
 Pro Gly Glu Lys Gly Glu Arg Gly Leu Arg Gly Glu Pro Gly Pro Gln
 340 345 350
 Gly Ser Ala Gly Gln Arg Gly Glu Pro Gly Pro Lys Gly Asp Pro Gly
 355 360 365
 Glu Lys Ser His Trp Ala Pro Ser Leu Gln Ser Phe Leu Gln Gln Gln
 370 375 380
 Ala Gln Leu Glu Leu Leu Ala Arg Arg Val Thr Leu Leu Glu Ala Ile
 385 390 395 400
 Ile Trp Pro Glu Pro Glu Leu Gly Ser Gly Ala Gly Pro Ala Gly Thr
 405 410 415
 Gly Thr Pro Ser Leu Leu Arg Gly Lys Arg Gly Gly His Ala Thr Asn
 420 425 430
 Tyr Arg Ile Val Ala Pro Arg Ser Arg Asp Glu Arg Gly
 435 440 445

<210> 9
 <211> 279
 <212> PRT
 <213> Homo sapiens

<400> 9
 Met Arg Leu Leu Ala Phe Leu Ser Leu Leu Ala Leu Val Leu Gln Glu
 1 5 10 15
 Thr Gly Thr Ala Ser Leu Pro Arg Lys Glu Arg Lys Arg Arg Glu Glu
 20 25 30
 Gln Met Pro Arg Glu Gly Asp Ser Phe Glu Val Leu Pro Leu Arg Asn
 35 40 45
 Asp Val Leu Asn Pro Asp Asn Tyr Gly Glu Val Ile Asp Leu Ser Asn
 50 55 60
 Tyr Glu Glu Leu Thr Asp Tyr Gly Asp Gln Leu Pro Glu Val Lys Val
 65 70 75 80
 Thr Ser Leu Ala Pro Ala Thr Ser Ile Ser Pro Ala Lys Ser Thr Thr
 85 90 95
 Ala Pro Gly Thr Pro Ser Ser Asn Pro Thr Met Thr Arg Pro Thr Thr
 100 105 110
 Ala Gly Leu Leu Leu Ser Ser Gln Pro Asn His Ala Lys Leu Lys Arg
 115 120 125

Ile Asp Leu Ser Asn Asn Leu Ile Ser Ser Ile Asp Asn Asp Ala Phe
 130 135 140
 Arg Leu Leu His Ala Leu Gln Asp Leu Ile Leu Pro Glu Asn Gln Leu
 145 150 155 160
 Glu Ala Leu Pro Val Leu Pro Ser Gly Ile Glu Phe Leu Asp Val Arg
 165 170 175
 Leu Asn Arg Leu Gln Ser Ser Gly Ile Gln Pro Ala Ala Phe Arg Ala
 180 185 190
 Met Glu Lys Leu Gln Phe Leu Tyr Leu Ser Asp Asn Leu Leu Asp Ser
 195 200 205
 Ile Pro Gly Pro Leu Pro Leu Ser Leu Arg Ser Val His Leu Gln Asn
 210 215 220
 Asn Leu Ile Glu Thr Met Gln Arg Asp Val Phe Cys Asp Pro Glu Glu
 225 230 235 240
 His Lys His Thr Arg Arg Gln Leu Glu Asp Ile Arg Leu Asp Gly Asn
 245 250 255
 Pro Ile Asn Leu Ser Leu Phe Pro Ser Ala Tyr Phe Cys Leu Pro Arg
 260 265 270
 Leu Pro Ile Gly Arg Phe Thr
 275

<210> 10

<211> 245

<212> PRT

<213> Homo sapiens

<400> 10

Met Ser Ser Arg Ile Ala Arg Ala Leu Ala Leu Val Val Thr Leu Leu
 1 5 10 15
 His Leu Thr Arg Leu Ala Leu Ser Thr Cys Pro Ala Ala Cys His Cys
 20 25 30
 Pro Leu Glu Ala Pro Lys Cys Ala Pro Gly Val Gly Leu Val Arg Asp
 35 40 45
 Gly Cys Gly Cys Cys Lys Val Cys Ala Lys Gln Leu Asn Glu Asp Cys
 50 55 60
 Ser Lys Thr Gln Pro Cys Asp His Thr Lys Gly Leu Glu Cys Asn Phe
 65 70 75 80
 Gly Ala Ser Ser Thr Ala Leu Lys Gly Ile Cys Arg Ala Gln Ser Glu
 85 90 95
 Gly Arg Pro Cys Glu Tyr Asn Ser Arg Ile Tyr Gln Asn Gly Glu Ser
 100 105 110

Phe Gln Pro Asn Cys Lys His Gln Cys Thr Cys Ile Asp Gly Ala Val
 115 120 125
 Gly Cys Ile Pro Leu Cys Pro Gln Glu Leu Ser Leu Pro Asn Leu Gly
 130 135 140
 Cys Pro Asn Pro Arg Leu Val Lys Val Thr Gly Gln Cys Cys Glu Glu
 145 150 155 160
 Trp Val Cys Asp Glu Asp Ser Ile Lys Asp Pro Met Glu Asp Gln Asp
 165 170 175
 Gly Leu Leu Gly Lys Glu Leu Gly Phe Asp Ala Ser Glu Val Glu Leu
 180 185 190
 Thr Arg Asn Asn Glu Leu Ile Ala Val Gly Lys Gly Ser Ser Leu Lys
 195 200 205
 Arg Leu Pro Gly Lys Trp Arg Leu Ser Thr Ser Asp Thr Val Leu Arg
 210 215 220
 Cys Ile Ser Gly Leu Asn Leu Cys Arg Asn Glu Cys Leu Ser Leu Phe
 225 230 235 240
 Val Ser Val Cys Leu
 245

<210> 11
 <211> 325
 <212> PRT
 <213> Homo sapiens

<400> 11
 Met Ala Ala Gly Thr Ala Val Gly Ala Trp Val Leu Val Leu Ser Leu
 1 5 10 15
 Trp Gly Ala Val Val Gly Ala Gln Asn Ile Thr Ala Arg Ile Gly Glu
 20 25 30
 Pro Leu Val Leu Lys Cys Lys Gly Ala Pro Lys Lys Pro Pro Gln Arg
 35 40 45
 Leu Glu Trp Lys Leu Asn Thr Gly Arg Thr Glu Ala Trp Lys Val Leu
 50 55 60
 Ser Pro Gln Gly Gly Gly Pro Trp Asp Ser Val Ala Arg Val Leu Pro
 65 70 75 80
 Asn Gly Ser Leu Phe Leu Pro Ala Val Gly Ile Gln Asp Glu Gly Ile
 85 90 95
 Phe Arg Cys Gln Ala Met Asn Arg Asn Gly Lys Glu Thr Lys Ser Asn
 100 105 110
 Tyr Arg Val Arg Val Tyr Gln Ile Pro Gly Lys Pro Glu Ile Val Asp
 115 120 125

Ser Ala Ser Glu Leu Thr Ala Gly Val Pro Asn Lys Val Gly Thr Cys
 130 135 140
 Val Ser Glu Gly Ser Tyr Pro Ala Gly Thr Leu Ser Trp His Leu Asp
 145 150 155 160
 Gly Lys Pro Leu Val Pro Asn Glu Lys Gly Val Ser Val Lys Glu Gln
 165 170 175
 Thr Arg Arg His Pro Glu Thr Gly Leu Phe Thr Leu Gln Ser Glu Leu
 180 185 190
 Met Val Thr Pro Ala Arg Gly Gly Asp Pro Arg Pro Thr Phe Ser Cys
 195 200 205
 Ser Phe Ser Pro Gly Leu Pro Arg His Arg Ala Leu Arg Thr Ala Pro
 210 215 220
 Ile Gln Pro Arg Val Trp Glu Pro Val Pro Leu Glu Glu Val Gln Leu
 225 230 235 240
 Val Val Glu Pro Glu Gly Gly Ala Val Ala Pro Gly Gly Thr Val Thr
 245 250 255
 Leu Thr Cys Glu Val Pro Ala Gln Pro Ser Pro Gln Ile His Trp Met
 260 265 270
 Lys Asp Asn Gln Ala Arg Arg Gly Gln Leu Gln Val Arg Gly Leu Ile
 275 280 285
 Lys Ser Gly Lys Gln Lys Ile Ala Pro Asn Thr Cys Asp Trp Gly Asp
 290 295 300
 Gly Gln Gln Glu Arg Asn Gly Arg Pro Gln Lys Thr Arg Arg Lys Arg
 305 310 315 320
 Arg Ser Val Gln Asn
 325

<210> 12
 <211> 58
 <212> PRT
 <213> Homo sapiens

<400> 12
 Met Arg Ala Ala Tyr Leu Phe Leu Leu Phe Leu Pro Ala Gly Leu Leu
 1 5 10 15
 Ala Gln Gly Gln Tyr Asp Leu Asp Pro Leu Pro Pro Phe Pro Asp His
 20 25 30
 Val Gln Tyr Thr His Tyr Ser Asp Gln Ile Asp Asn Pro Asp Tyr Tyr
 35 40 45
 Asp Tyr Gln Gly Asn Gly Leu Gly Val Gly
 50 55

<210> 13
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 13

```

Met Gly Thr Trp Ile Leu Phe Ala Cys Leu Leu Gly Ala Ala Phe Ala
 1           5           10           15

Met Pro Val Leu Thr Pro Leu Lys Trp Tyr Gln Ser Ile Arg Pro Pro
          20           25           30

His Pro Pro Thr His Thr Leu Gln Pro His His His Ile Pro Val Val
      35           40           45

Pro Ala Gln Gln Pro Val Ile Pro Gln Gln Pro Met Met Pro Val Pro
      50           55           60

Gly Gln His Ser Met Thr Pro Ile Gln His His Gln Pro Asn Leu Pro
 65           70           75           80

Pro Pro Ala Gln Gln Pro Tyr Gln Pro Gln Pro Val Gln Pro Gln Pro
          85           90           95

His Gln Pro Met Gln Pro Gln Pro Pro Val His Pro Met Gln Pro Leu
      100           105           110

Pro Pro Gln Pro Pro Leu Pro Pro Met Phe Pro Met Gln Pro Leu Pro
      115           120           125

Pro Met Leu Pro Asp Leu Thr Leu Glu Ala Trp Pro Ser Thr Asp Lys
      130           135           140

Thr Lys Arg Glu Glu Val Asp
145           150

```

<210> 14
 <211> 175
 <212> PRT
 <213> Homo sapiens

<400> 14

```

Met Gly Thr Trp Ile Leu Phe Ala Cys Leu Leu Gly Ala Ala Phe Ala
 1           5           10           15

Met Pro Val Leu Thr Pro Leu Lys Trp Tyr Gln Ser Ile Arg Pro Pro
          20           25           30

Tyr Pro Ser Tyr Gly Tyr Glu Pro Met Gly Gly Trp Leu His His Gln
      35           40           45

Ile Ile Pro Val Leu Ser Gln Gln His Pro Pro Thr His Thr Leu Gln
      50           55           60

Pro His His His Ile Pro Val Val Pro Ala Gln Gln Pro Val Ile Pro
      65           70           75           80

```

Gln	Gln	Pro	Met	Met	Pro	Val	Pro	Gly	Gln	His	Ser	Met	Thr	Pro	Ile
				85					90					95	
Gln	His	His	Gln	Pro	Asn	Leu	Pro	Pro	Pro	Ala	Gln	Gln	Pro	Tyr	Gln
			100					105					110		
Pro	Gln	Pro	Val	Gln	Pro	Gln	Pro	His	Gln	Pro	Met	Gln	Pro	Gln	Pro
		115					120					125			
Pro	Val	His	Pro	Met	Gln	Pro	Leu	Pro	Pro	Gln	Pro	Pro	Leu	Pro	Pro
	130					135					140				
Met	Phe	Pro	Met	Gln	Pro	Leu	Pro	Pro	Met	Leu	Pro	Asp	Leu	Thr	Leu
145					150					155					160
Glu	Ala	Trp	Pro	Ser	Thr	Asp	Lys	Thr	Lys	Arg	Glu	Glu	Val	Asp	
				165					170					175	

```
<210> 15
<211> 81
<212> PRT
<213> Homo sapiens
```

```
<400> 15  
Met Gly Gly Ala Gly Ile Leu Leu Leu Leu Leu Ala Gly Ala Gly Val  
   1                               5               10                   15  
  
Val Val Ala Trp Arg Pro Pro Lys Gly Lys Cys Pro Leu Arg Cys Ser  
                20              25      30  
  
Cys Ser Lys Asp Ser Ala Leu Cys Glu Gly Ser Pro Asp Leu Pro Val  
          35             40           45  
  
Ser Phe Ser Pro Thr Leu Leu Ser Leu Ser Leu Val Arg Thr Gly Val  
    50                     55                 60  
  
Thr Gln Leu Lys Ala Gly Ser Phe Leu Arg Ile Pro Ser Leu His Leu  
   65             70               75                   80  
  
Leu
```

```
<210> 16
<211> 749
<212> PRT
<213> Homo sapiens
```

<400> 16
Met Met Phe Pro Trp Lys Gln Leu Ile Leu Leu Ser Phe Ile Gly Cys
1 5 10 15
Leu Gly Gly Glu Leu Leu Leu Gln Gly Pro Val Phe Ile Lys Glu Pro
20 25 30

Ser	Asn	Ser	Ile	Phe	Pro	Val	Gly	Ser	Glu	Asp	Lys	Lys	Ile	Thr	Leu	35	40	45
His	Cys	Glu	Ala	Arg	Gly	Asn	Pro	Ser	Pro	His	Tyr	Arg	Trp	Gln	Leu	50	55	60
Asn	Gly	Ser	Asp	Ile	Asp	Met	Ser	Met	Glu	His	Arg	Tyr	Lys	Leu	Asn	65	70	75
Gly	Gly	Asn	Leu	Val	Val	Ile	Asn	Pro	Asn	Arg	Asn	Trp	Asp	Thr	Gly	85	90	95
Thr	Tyr	Gln	Cys	Phe	Ala	Thr	Asn	Ser	Leu	Gly	Thr	Ile	Val	Ser	Arg	100	105	110
Glu	Ala	Lys	Leu	Gln	Phe	Ala	Tyr	Leu	Glu	Asn	Phe	Lys	Thr	Lys	Met	115	120	125
Arg	Ser	Thr	Val	Ser	Val	Arg	Glu	Gly	Gln	Gly	Val	Val	Leu	Leu	Cys	130	135	140
Gly	Pro	Pro	Pro	His	Ser	Gly	Glu	Leu	Ser	Tyr	Ala	Trp	Ile	Phe	Asn	145	150	155
Glu	Tyr	Pro	Ser	Phe	Val	Glu	Glu	Asp	Ser	Arg	Arg	Phe	Val	Ser	Gln	165	170	175
Glu	Thr	Gly	His	Leu	Tyr	Ile	Ser	Lys	Val	Glu	Pro	Ser	Asp	Val	Gly	180	185	190
Asn	Tyr	Thr	Cys	Val	Val	Thr	Ser	Met	Val	Thr	Asn	Ala	Arg	Val	Leu	195	200	205
Gly	Ser	Pro	Thr	Pro	Leu	Val	Leu	Arg	Ser	Asp	Gly	Val	Met	Gly	Glu	210	215	220
Tyr	Glu	Pro	Lys	Ile	Glu	Val	Gln	Phe	Pro	Glu	Thr	Leu	Pro	Ala	Ala	225	230	235
Lys	Gly	Ser	Thr	Val	Lys	Leu	Glu	Cys	Phe	Ala	Leu	Gly	Asn	Lys	Ala	245	250	255
Pro	Leu	Gly	Ser	Thr	His	Lys	Gly	Cys	Gly	Asn	Ser	Arg	Gly	Gly	Gln	260	265	270
Ser	Leu	Leu	Gly	Met	Gln	Gly	Lys	Arg	Gln	Ala	Gln	Ala	Phe	Leu	Pro	275	280	285
Met	Ala	Glu	Lys	Trp	Ser	Ser	Pro	Gly	Ala	Arg	Ala	Ser	Ala	Pro	Asp	290	295	300
Phe	Ser	Lys	Asn	Pro	Met	Lys	Lys	Leu	Val	Gln	Val	Gln	Val	Gly	Ser	305	310	315
Leu	Val	Ser	Leu	Asp	Cys	Lys	Pro	Arg	Ala	Ser	Pro	Arg	Ala	Leu	Ser	325	330	335

Ser Trp Lys Lys Gly Asp Val Ser Val Gln Glu His Glu Arg Ile Ser
 340 345 350
 Leu Leu Asn Asp Gly Gly Leu Lys Ile Ala Asn Val Thr Lys Ala Asp
 355 360 365
 Ala Gly Thr Tyr Thr Cys Met Ala Glu Asn Gln Phe Gly Lys Ala Asn
 370 375 380
 Gly Thr Thr His Leu Val Val Thr Glu Pro Thr Arg Ile Thr Leu Ala
 385 390 395 400
 Pro Ser Asn Met Asp Val Ser Val Gly Glu Ser Val Ile Leu Pro Cys
 405 410 415
 Gln Val Gln His Asp Pro Leu Leu Asp Ile Ile Phe Thr Trp Tyr Phe
 420 425 430
 Asn Gly Ala Leu Ala Asp Phe Lys Lys Asp Gly Ser His Phe Glu Lys
 435 440 445
 Val Gly Gly Ser Ser Ser Gly Asp Leu Met Ile Arg Asn Ile Gln Leu
 450 455 460
 Lys His Ser Gly Lys Tyr Val Cys Met Val Gln Thr Gly Val Asp Ser
 465 470 475 480
 Val Ser Ser Ala Ala Asp Leu Ile Val Arg Gly Ser Pro Gly Pro Pro
 485 490 495
 Glu Asn Val Lys Val Asp Glu Ile Thr Asp Thr Thr Ala Gln Leu Ser
 500 505 510
 Trp Lys Glu Gly Lys Asp Asn His Ser Pro Val Ile Ser Tyr Ser Ile
 515 520 525
 Gln Ala Arg Thr Pro Phe Ser Val Gly Trp Gln Thr Val Thr Thr Val
 530 535 540
 Pro Glu Val Ile Asp Gly Lys Thr His Thr Ala Thr Val Val Glu Leu
 545 550 555 560
 Asn Pro Trp Val Glu Tyr Glu Phe Arg Val Val Ala Ser Asn Lys Ile
 565 570 575
 Gly Gly Gly Glu Pro Ser Leu Pro Ser Glu Lys Val Arg Thr Glu Glu
 580 585 590
 Ala Val Pro Glu Val Pro Pro Ser Glu Val Asn Gly Gly Gly Ser
 595 600 605
 Arg Ser Glu Leu Val Ile Thr Trp Asp Pro Val Pro Glu Glu Leu Gln
 610 615 620
 Asn Gly Glu Gly Phe Gly Tyr Val Val Ala Phe Arg Pro Leu Gly Val
 625 630 635 640

Thr Thr Trp Ile Gln Thr Val Val Thr Ser Pro Asp Thr Pro Arg Tyr
 645 650 655
 Val Phe Arg Asn Glu Ser Ile Val Pro Tyr Ser Pro Tyr Glu Val Lys
 660 665 670
 Val Gly Val Tyr Asn Asn Lys Gly Glu Gly Pro Phe Ser Pro Val Thr
 675 680 685
 Thr Val Phe Ser Ala Glu Glu Glu Pro Thr Val Ala Pro Ser Gln Val
 690 695 700
 Ser Ala Asn Ser Leu Ser Ser Ser Glu Ile Glu Val Ser Trp Asn Thr
 705 710 715 720
 Ile Pro Trp Lys Leu Ser Asn Gly His Leu Leu Gly Tyr Glu Val Arg
 725 730 735
 Tyr Trp Asn Gly Val Glu Arg Arg Asn His Pro Val Arg
 740 745

<210> 17
 <211> 999
 <212> PRT
 <213> Homo sapiens

<400> 17
 Met Met Phe Pro Trp Lys Gln Leu Ile Leu Leu Ser Phe Ile Gly Cys
 1 5 10 15
 Leu Gly Gly Glu Leu Leu Leu Gln Gly Pro Val Phe Ile Lys Glu Pro
 20 25 30
 Ser Asn Ser Ile Phe Pro Val Gly Ser Glu Asp Lys Lys Ile Thr Leu
 35 40 45
 His Cys Glu Ala Arg Gly Asn Pro Ser Pro His Tyr Arg Trp Gln Leu
 50 55 60
 Asn Gly Ser Asp Ile Asp Met Ser Met Glu His Arg Tyr Lys Leu Asn
 65 70 75 80
 Gly Gly Asn Leu Val Val Ile Asn Pro Asn Arg Asn Trp Asp Thr Gly
 85 90 95
 Thr Tyr Gln Cys Phe Ala Thr Asn Ser Leu Gly Thr Ile Val Ser Arg
 100 105 110
 Glu Ala Lys Leu Gln Phe Ala Tyr Leu Glu Asn Phe Lys Thr Lys Met
 115 120 125
 Arg Ser Thr Val Ser Val Arg Glu Gly Gln Gly Val Val Leu Leu Cys
 130 135 140
 Gly Pro Pro Pro His Ser Gly Glu Leu Ser Tyr Ala Trp Ile Phe Asn
 145 150 155 160

Lys	Ile	Ala	Asn	Val	Thr	Lys	Ala	Asp	Ala	Gly	Thr	Tyr	Thr	Cys	Met	465	470	475	480
Ala	Glu	Asn	Gln	Phe	Gly	Lys	Ala	Asn	Gly	Thr	Thr	His	Leu	Val	Val	485	490	495	
Thr	Glu	Pro	Thr	Arg	Ile	Thr	Leu	Ala	Pro	Ser	Asn	Met	Asp	Val	Ser	500	505	510	
Val	Gly	Glu	Ser	Val	Ile	Leu	Pro	Cys	Gln	Val	Gln	His	Asp	Pro	Leu	515	520	525	
Leu	Asp	Ile	Ile	Phe	Thr	Trp	Tyr	Phe	Asn	Gly	Ala	Leu	Ala	Asp	Phe	530	535	540	
Lys	Lys	Asp	Gly	Ser	His	Phe	Glu	Lys	Val	Gly	Gly	Ser	Ser	Ser	Gly	545	550	555	560
Asp	Leu	Met	Ile	Arg	Asn	Ile	Gln	Leu	Lys	His	Ser	Gly	Lys	Tyr	Val	565	570	575	
Cys	Met	Val	Gln	Thr	Gly	Val	Asp	Ser	Val	Ser	Ser	Ala	Ala	Asp	Leu	580	585	590	
Ile	Val	Arg	Gly	Ser	Pro	Gly	Pro	Pro	Glu	Asn	Val	Lys	Ala	Arg	Thr	595	600	605	
Pro	Phe	Ser	Val	Gly	Trp	Gln	Thr	Val	Thr	Thr	Val	Pro	Glu	Val	Ile	610	615	620	
Asp	Gly	Lys	Thr	His	Thr	Ala	Thr	Val	Val	Glu	Leu	Asn	Pro	Trp	Val	625	630	635	640
Glu	Tyr	Glu	Phe	Arg	Val	Val	Ala	Ser	Asn	Lys	Ile	Gly	Gly	Gly	Glu	645	650	655	
Pro	Ser	Leu	Pro	Ser	Glu	Lys	Val	Arg	Thr	Glu	Glu	Ala	Val	Pro	Glu	660	665	670	
Val	Pro	Pro	Ser	Glu	Val	Asn	Gly	Gly	Gly	Gly	Ser	Arg	Ser	Glu	Leu	675	680	685	
Val	Ile	Thr	Trp	Asp	Pro	Val	Pro	Glu	Glu	Leu	Gln	Asn	Gly	Glu	Gly	690	695	700	
Phe	Gly	Tyr	Val	Val	Ala	Phe	Arg	Pro	Leu	Gly	Val	Thr	Thr	Trp	Ile	705	710	715	720
Gln	Thr	Val	Val	Thr	Ser	Pro	Asp	Thr	Pro	Arg	Tyr	Val	Phe	Arg	Asn	725	730	735	
Glu	Ser	Ile	Val	Pro	Tyr	Ser	Pro	Tyr	Glu	Val	Lys	Val	Gly	Val	Tyr	740	745	750	
Asn	Asn	Lys	Gly	Glu	Gly	Pro	Phe	Ser	Pro	Val	Thr	Thr	Val	Phe	Ser	755	760	765	

Ala Glu Glu Glu Pro Thr Val Ala Pro Ser Gln Val Ser Ala Asn Ser
 770 775 780
 Leu Ser Ser Ser Glu Ile Glu Val Ser Trp Asn Thr Ile Pro Trp Lys
 785 790 795 800
 Leu Ser Asn Gly His Leu Leu Gly Tyr Glu Val Arg Tyr Trp Asn Gly
 805 810 815
 Gly Gly Lys Glu Glu Ser Ser Ser Lys Met Lys Val Ala Gly Asn Glu
 820 825 830
 Thr Ser Ala Arg Leu Arg Gly Leu Lys Ser Asn Leu Ala Tyr Tyr Thr
 835 840 845
 Ala Val Arg Ala Tyr Asn Ser Ala Gly Ala Gly Pro Phe Ser Ala Thr
 850 855 860
 Val Asn Val Thr Thr Lys Lys Thr Pro Pro Ser Gln Pro Pro Gly Asn
 865 870 875 880
 Val Val Trp Asn Ala Thr Asp Thr Lys Val Leu Leu Asn Trp Glu Gln
 885 890 895
 Val Lys Ala Met Glu Asn Glu Ser Glu Val Thr Gly Tyr Lys Val Phe
 900 905 910
 Tyr Arg Thr Ser Ser Gln Asn Asn Val Gln Val Leu Asn Thr Asn Lys
 915 920 925
 Thr Ser Ala Glu Leu Val Leu Pro Ile Lys Glu Asp Tyr Ile Ile Glu
 930 935 940
 Val Lys Ala Thr Thr Asp Gly Gly Asp Gly Thr Ser Ser Glu Gln Ile
 945 950 955 960
 Arg Ile Pro Arg Ile Thr Ser Met Asp Ala Arg Gly Ser Thr Ser Ala
 965 970 975
 Ile Ser Asn Val His Pro Met Ser Ser Tyr Met Pro Ile Val Leu Phe
 980 985 990
 Leu Ile Val Tyr Val Leu Trp
 995

<210> 18

<211> 200

<212> PRT

<213> Homo sapiens

<400> 18

Met Arg Leu Gly Leu Cys Val Val Ala Leu Val Leu Ser Trp Thr His
 1 5 10 15

Leu Thr Ile Ser Ser Arg Gly Ile Lys Gly Lys Arg Gln Arg Arg Ile
 20 25 30

Ser Ala Glu Gly Ser Gln Ala Cys Ala Lys Gly Cys Glu Leu Cys Ser
 35 40 45
 Glu Val Asn Gly Cys Leu Lys Cys Ser Pro Lys Leu Phe Ile Leu Leu
 50 55 60
 Glu Arg Asn Asp Ile Arg Gln Val Gly Val Cys Leu Pro Ser Cys Pro
 65 70 75 80
 Pro Gly Tyr Phe Asp Ala Arg Asn Pro Asp Met Asn Lys Cys Ile Lys
 85 90 95
 Cys Lys Ile Glu His Cys Glu Ala Cys Phe Ser His Asn Phe Cys Thr
 100 105 110
 Lys Cys Lys Glu Gly Leu Tyr Leu His Lys Gly Arg Cys Tyr Pro Ala
 115 120 125
 Cys Pro Glu Gly Ser Ser Ala Ala Asn Gly Thr Met Glu Cys Ser Ser
 130 135 140
 Pro Gly Gln Lys Arg Arg Lys Gly Gly Gln Gly Arg Arg Glu Asn Ala
 145 150 155 160
 Asn Arg Asn Leu Ala Arg Lys Glu Ser Lys Glu Ala Gly Ala Gly Ser
 165 170 175
 Arg Arg Arg Lys Gly Gln Gln Gln Gln Gln Gln Gly Thr Val Gly
 180 185 190
 Pro Leu Thr Ser Ala Gly Pro Ala
 195 200

<210> 19
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 19
 Met Val Arg Pro Met Leu Leu Leu Ser Leu Gly Leu Leu Ala Gly Leu
 1 5 10 15
 Leu Pro Ala Leu Ala Ala Cys Pro Gln Asn Cys His Cys His Ser Asp
 20 25 30
 Leu Gln His Val Ile Cys Asp Lys Val Gly Leu Gln Lys Ile Pro Lys
 35 40 45
 Val Ser Glu Lys Thr Lys Leu Leu Asn Leu Gln Arg Asn Asn Phe Pro
 50 55 60
 Val Leu Ala Ala Asn Ser Phe Arg Ala Met Pro Asn Leu Val Ser Leu
 65 70 75 80
 His Leu Gln His Cys Gln Ile Arg Glu Val Ala Ala Gly Ala Phe Arg
 85 90 95

Gly Leu Lys Gln Leu Ile Tyr Leu Tyr Leu Ser His Asn Asp Ile Arg
 100 105 110

Val Leu Arg Ala Ala Gln Gln Gln Gln Asp Pro
 115 120

<210> 20
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 20
 Met Lys Leu His Cys Cys Leu Phe Thr Leu Val Ala Ser Ile Ile Val
 1 5 10 15
 Pro Ala Ala Phe Val Leu Glu Asp Val Asp Phe Asp Gln Met Val Ser
 20 25 30
 Leu Glu Ala Asn Arg Ser Ser Tyr Asn Ala Ser Phe Pro Ser Ser Phe
 35 40 45
 Glu Leu Ser Ala Ser Ser His Ser Asp Asp Asp Val Ile Ile Ala Lys
 50 55 60
 Glu Gly Thr Ser Val Ser Ile Glu Cys Leu Leu Thr Ala Ser His Tyr
 65 70 75 80
 Glu Asp Val His Trp His Asn Ser Lys Gly Gln Gln Leu Asp Gly Arg
 85 90 95
 Ser Arg Gly Leu Arg
 100

<210> 21
 <211> 1040
 <212> PRT
 <213> Homo sapiens

<400> 21
 Met Ile Val Leu Leu Leu Phe Ala Leu Leu Trp Met Val Glu Gly Val
 1 5 10 15
 Phe Ser Gln Leu His Tyr Thr Val Gln Glu Glu Gln Glu His Gly Thr
 20 25 30
 Phe Val Gly Asn Ile Ala Glu Asp Leu Gly Leu Asp Ile Thr Lys Leu
 35 40 45
 Ser Ala Arg Gly Phe Gln Thr Val Pro Asn Ser Arg Thr Pro Tyr Leu
 50 55 60
 Asp Leu Asn Leu Glu Thr Gly Val Leu Tyr Val Asn Glu Lys Ile Asp
 65 70 75 80
 Arg Glu Gln Ile Cys Lys Gln Ser Pro Ser Cys Val Leu His Leu Glu
 85 90 95

Val Phe Leu Glu Asn Pro Leu Glu Leu Phe Gln Val Glu Ile Glu Val
 100 105 110
 Leu Asp Ile Asn Asp Asn Pro Pro Ser Phe Pro Glu Pro Asp Leu Thr
 115 120 125
 Val Glu Ile Ser Glu Ser Ala Thr Pro Gly Thr Arg Phe Pro Leu Glu
 130 135 140
 Ser Ala Phe Asp Pro Asp Val Gly Thr Asn Ser Leu Arg Asp Tyr Glu
 145 150 155 160
 Ile Thr Pro Asn Ser Tyr Phe Ser Leu Asp Val Gln Thr Gln Gly Asp
 165 170 175
 Gly Asn Arg Phe Ala Glu Leu Val Leu Glu Lys Pro Leu Asp Arg Glu
 180 185 190
 Gln Gln Ala Val His Arg Tyr Val Leu Thr Ala Val Asp Gly Gly Gly
 195 200 205
 Gly Gly Gly Val Gly Glu Gly Gly Gly Gly Gly Gly Ala Gly Leu
 210 215 220
 Pro Pro Gln Gln Gln Arg Thr Gly Thr Ala Leu Leu Thr Ile Arg Val
 225 230 235 240
 Leu Asp Ser Asn Asp Asn Val Pro Ala Phe Asp Gln Pro Val Tyr Thr
 245 250 255
 Val Ser Leu Pro Glu Asn Ser Pro Pro Gly Thr Leu Val Ile Gln Leu
 260 265 270
 Asn Ala Thr Asp Pro Asp Glu Gly Gln Asn Gly Glu Val Val Tyr Ser
 275 280 285
 Phe Ser Ser His Ile Ser Pro Arg Ala Arg Glu Leu Phe Gly Leu Ser
 290 295 300
 Pro Arg Thr Gly Arg Leu Glu Val Ser Gly Glu Leu Asp Tyr Glu Glu
 305 310 315 320
 Ser Pro Val Tyr Gln Val Tyr Val Gln Ala Lys Asp Leu Gly Pro Asn
 325 330 335
 Ala Val Pro Ala His Cys Lys Val Leu Val Arg Val Leu Asp Ala Asn
 340 345 350
 Asp Asn Ala Pro Glu Ile Ser Phe Ser Thr Val Lys Glu Ala Val Ser
 355 360 365
 Glu Gly Ala Ala Pro Gly Thr Val Val Ala Leu Phe Ser Val Thr Asp
 370 375 380
 Arg Asp Ser Glu Glu Asn Gly Gln Val Gln Cys Glu Leu Leu Gly Asp
 385 390 395 400

Val	Pro	Phe	Arg	Leu	Lys	Ser	Ser	Phe	Lys	Asn	Tyr	Tyr	Thr	Ile	Ile	
				405					410					415		
Thr	Glu	Ala	Pro	Leu	Asp	Arg	Glu	Ala	Gly	Asp	Ser	Tyr	Thr	Leu	Thr	
			420					425					430			
Val	Val	Ala	Arg	Asp	Arg	Gly	Glu	Pro	Ala	Leu	Ser	Thr	Ser	Lys	Ser	
		435					440					445				
Ile	Gln	Val	Gln	Val	Ser	Asp	Val	Asn	Asp	Asn	Ala	Pro	Arg	Phe	Ser	
	450					455					460					
Gln	Pro	Val	Tyr	Asp	Val	Tyr	Val	Thr	Glu	Asn	Asn	Val	Pro	Gly	Ala	
465					470					475					480	
Tyr	Ile	Tyr	Ala	Val	Ser	Ala	Thr	Asp	Arg	Asp	Glu	Gly	Ala	Asn	Ala	
			485						490					495		
Gln	Leu	Ala	Tyr	Ser	Ile	Leu	Glu	Cys	Gln	Ile	Gln	Gly	Met	Ser	Val	
			500					505					510			
Phe	Thr	Tyr	Val	Ser	Ile	Asn	Ser	Glu	Asn	Gly	Tyr	Leu	Tyr	Ala	Leu	
		515					520					525				
Arg	Ser	Phe	Asp	Tyr	Glu	Gln	Leu	Lys	Asp	Phe	Ser	Phe	Gln	Val	Glu	
		530				535					540					
Ala	Arg	Asp	Ala	Gly	Ser	Pro	Gln	Ala	Leu	Ala	Gly	Asn	Ala	Thr	Val	
545					550					555					560	
Asn	Ile	Leu	Ile	Val	Asp	Gln	Asn	Asp	Asn	Ala	Pro	Ala	Ile	Val	Ala	
			565						570					575		
Pro	Leu	Pro	Gly	Arg	Asn	Gly	Thr	Pro	Ala	Arg	Glu	Val	Leu	Pro	Arg	
			580					585					590			
Ser	Ala	Glu	Pro	Gly	Tyr	Leu	Leu	Thr	Arg	Val	Ala	Ala	Val	Asp	Ala	
		595					600					605				
Asp	Asp	Gly	Glu	Asn	Ala	Arg	Leu	Thr	Tyr	Ser	Ile	Val	Arg	Gly	Asn	
	610					615					620					
Glu	Met	Asn	Leu	Phe	Arg	Met	Asp	Trp	Arg	Thr	Gly	Glu	Leu	Arg	Thr	
625					630					635					640	
Ala	Arg	Arg	Val	Pro	Ala	Lys	Arg	Asp	Pro	Gln	Arg	Pro	Tyr	Glu	Leu	
				645					650					655		
Val	Ile	Glu	Val	Arg	Asp	His	Gly	Gln	Pro	Pro	Leu	Ser	Ser	Thr	Ala	
			660					665					670			
Thr	Leu	Val	Val	Gln	Leu	Val	Asp	Gly	Ala	Val	Glu	Pro	Gln	Gly	Gly	
		675					680					685				
Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Glu	His	Gln	Arg	Pro	Ser	Arg	
	690					695					700					

Ser	Gly	Gly	Gly	Glu	Thr	Ser	Leu	Asp	Leu	Thr	Leu	Ile	Leu	Ile	Ile	705	710	715	720
Ala	Leu	Gly	Ser	Val	Ser	Phe	Ile	Phe	Leu	Leu	Ala	Met	Ile	Val	Leu	725	730	735	
Ala	Val	Arg	Cys	Gln	Lys	Glu	Lys	Lys	Leu	Asn	Ile	Tyr	Thr	Cys	Leu	740	745	750	
Ala	Ser	Asp	Cys	Cys	Leu	Cys	Cys	Cys	Cys	Cys	Gly	Gly	Gly	Gly	Ser	755	760	765	
Thr	Cys	Cys	Gly	Arg	Gln	Ala	Arg	Ala	Arg	Lys	Lys	Lys	Leu	Ser	Lys	770	775	780	
Ser	Asp	Ile	Met	Leu	Val	Gln	Ser	Ser	Asn	Val	Pro	Ser	Asn	Pro	Ala	785	790	795	800
Gln	Val	Pro	Ile	Glu	Glu	Ser	Gly	Gly	Phe	Gly	Ser	His	His	His	Asn	805	810	815	
Gln	Asn	Tyr	Cys	Tyr	Gln	Val	Cys	Leu	Thr	Pro	Glu	Ser	Ala	Lys	Thr	820	825	830	
Asp	Leu	Met	Phe	Leu	Lys	Pro	Cys	Ser	Pro	Ser	Arg	Ser	Thr	Asp	Thr	835	840	845	
Glu	His	Asn	Pro	Cys	Gly	Ala	Ile	Val	Thr	Gly	Tyr	Thr	Asp	Gln	Gln	850	855	860	
Pro	Asp	Ile	Ile	Ser	Asn	Gly	Ser	Ile	Leu	Ser	Asn	Glu	Thr	Lys	His	865	870	875	880
Gln	Arg	Ala	Glu	Leu	Ser	Tyr	Leu	Val	Asp	Arg	Pro	Arg	Arg	Val	Asn	885	890	895	
Ser	Ser	Ala	Phe	Gln	Glu	Ala	Asp	Ile	Val	Ser	Ser	Lys	Asp	Ser	Gly	900	905	910	
His	Gly	Asp	Ser	Glu	Gln	Gly	Asp	Ser	Asp	His	Asp	Ala	Thr	Asn	Arg	915	920	925	
Ala	Gln	Ser	Ala	Gly	Met	Asp	Leu	Phe	Ser	Asn	Cys	Thr	Glu	Glu	Cys	930	935	940	
Lys	Ala	Leu	Gly	His	Ser	Asp	Arg	Cys	Trp	Met	Pro	Ser	Phe	Val	Pro	945	950	955	960
Ser	Asp	Gly	Arg	Gln	Ala	Ala	Asp	Tyr	Arg	Ser	Asn	Leu	His	Val	Pro	965	970	975	
Gly	Met	Asp	Ser	Val	Pro	Asp	Thr	Glu	Val	Phe	Glu	Thr	Pro	Glu	Ala	980	985	990	
Gln	Pro	Gly	Ala	Glu	Arg	Ser	Phe	Ser	Thr	Phe	Gly	Lys	Glu	Lys	Ala	995	1000	1005	

Leu His Ser Thr Leu Glu Arg Lys Glu Leu Asp Gly Leu Leu Thr Asn
 1010 1015 1020

Thr Arg Ala Pro Tyr Lys Pro Pro Tyr Leu Thr Arg Lys Arg Ile Cys
 1025 1030 1035 1040

<210> 22
 <211> 58
 <212> PRT
 <213> Homo sapiens

<400> 22
 Met Gly Thr Trp Ile Leu Phe Ala Cys Leu Leu Gly Ala Ala Phe Ala
 1 5 10 15

Met Pro Val Leu Thr Pro Leu Lys Trp Tyr Gln Ser Ile Arg Pro Pro
 20 25 30

Pro Leu Pro Pro Met Leu Pro Asp Leu Thr Leu Glu Ala Trp Pro Ser
 35 40 45

Thr Asp Lys Thr Lys Arg Glu Val Asp
 50 55

<210> 23
 <211> 74
 <212> PRT
 <213> Homo sapiens

<400> 23
 Met Gly Thr Trp Ile Leu Phe Ala Cys Leu Leu Gly Ala Ala Phe Ala
 1 5 10 15

Met Pro Leu Pro Pro His Pro Gly His Pro Gly Tyr Ile Asn Phe Ser
 20 25 30

Tyr Glu Val Leu Thr Pro Leu Lys Trp Tyr Gln Ser Ile Arg Pro Pro
 35 40 45

Pro Leu Pro Pro Met Leu Pro Asp Leu Thr Leu Glu Ala Trp Pro Ser
 50 55 60

Thr Asp Lys Thr Lys Arg Glu Glu Val Asp
 65 70

<210> 24
 <211> 366
 <212> PRT
 <213> Homo sapiens

<400> 24

Met	Leu	His	Pro	Glu	Thr	Ser	Pro	Gly	Arg	Gly	His	Leu	Leu	Ala	Val
1				5					10					15	
Leu	Leu	Ala	Leu	Leu	Gly	Thr	Thr	Trp	Ala	Glu	Val	Trp	Pro	Pro	Gln
			20					25					30		
Leu	Gln	Glu	Gln	Ala	Pro	Met	Ala	Gly	Ala	Leu	Asn	Arg	Lys	Glu	Ser
		35					40					45			
Phe	Leu	Leu	Leu	Ser	Leu	His	Asn	Arg	Leu	Arg	Ser	Trp	Val	Gln	Pro
	50					55					60				
Pro	Ala	Ala	Asp	Met	Arg	Arg	Leu	Leu	Val	Trp	Ala	Thr	Ser	Ser	Gln
	65				70					75					80
Leu	Gly	Cys	Gly	Arg	His	Leu	Cys	Ser	Ala	Gly	Gln	Thr	Ala	Ile	Glu
				85					90					95	
Ala	Phe	Val	Cys	Ala	Tyr	Ser	Pro	Gly	Gly	Asn	Trp	Glu	Val	Asn	Gly
			100					105					110		
Lys	Thr	Ile	Ile	Pro	Tyr	Lys	Lys	Gly	Ala	Trp	Cys	Ser	Leu	Cys	Thr
		115					120					125			
Ala	Ser	Val	Ser	Gly	Cys	Phe	Lys	Ala	Trp	Asp	His	Ala	Gly	Gly	Leu
	130					135					140				
Cys	Glu	Val	Pro	Arg	Asn	Pro	Cys	Arg	Met	Ser	Cys	Gln	Asn	His	Gly
	145				150					155					160
Arg	Leu	Asn	Ile	Ser	Thr	Cys	His	Cys	His	Cys	Pro	Pro	Gly	Tyr	Thr
				165					170					175	
Gly	Arg	Tyr	Cys	Gln	Val	Arg	Cys	Ser	Leu	Gln	Cys	Val	His	Gly	Arg
			180					185					190		
Phe	Arg	Glu	Glu	Glu	Cys	Ser	Cys	Val	Cys	Asp	Ile	Gly	Tyr	Gly	Gly
		195					200					205			
Ala	Gln	Cys	Ala	Thr	Lys	Val	His	Phe	Pro	Phe	His	Thr	Cys	Asp	Leu
			210			215					220				
Arg	Ile	Asp	Gly	Asp	Cys	Phe	Met	Val	Ser	Ser	Glu	Ala	Asp	Thr	Tyr
	225				230					235					240
Tyr	Arg	Ala	Arg	Met	Lys	Cys	Gln	Arg	Lys	Gly	Gly	Val	Leu	Ala	Gln
				245					250					255	
Ile	Lys	Ser	Gln	Lys	Val	Gln	Asp	Ile	Leu	Ala	Phe	Tyr	Leu	Gly	Arg
			260					265					270		
Leu	Glu	Thr	Thr	Asn	Glu	Val	Thr	Asp	Ser	Asp	Phe	Glu	Thr	Arg	Asn
		275					280					285			
Phe	Trp	Ile	Gly	Leu	Thr	Tyr	Lys	Thr	Ala	Lys	Asp	Ser	Phe	Arg	Trp
	290					295					300				

Ala Thr Gly Glu His Gln Ala Phe Thr Ser Phe Ala Phe Gly Gln Pro
 305 310 315 320
 Asp Asn His Gly Phe Gly Asn Cys Val Glu Leu Gln Ala Ser Ala Ala
 325 330 335
 Phe Asn Trp Asn Asp Gln Arg Cys Lys Thr Arg Asn Arg Tyr Ile Cys
 340 345 350
 Gln Phe Ala Gln Glu His Ile Ser Arg Trp Gly Pro Gly Ser
 355 360 365

<210> 25
 <211> 74
 <212> PRT
 <213> Homo sapiens

<400> 25
 Met Val Val Leu Asn Pro Met Thr Leu Gly Ile Tyr Leu Gln Leu Phe
 1 5 10 15
 Phe Leu Ser Ile Val Ser Gln Pro Thr Phe Ile Asn Ser Val Leu Pro
 20 25 30
 Ile Ser Ala Ala Leu Pro Ser Leu Asp Gln Lys Lys Arg Gly Gly His
 35 40 45
 Lys Ala Cys Cys Leu Leu Thr Pro Pro Pro Pro Pro Leu Phe Pro Pro
 50 55 60
 Pro Phe Phe Arg Gly Gly Arg Ser Pro Thr
 65 70

<210> 26
 <211> 272
 <212> PRT
 <213> Homo sapiens

<400> 26
 Met Val Val Leu Asn Pro Met Thr Leu Gly Ile Tyr Leu Gln Leu Phe
 1 5 10 15
 Phe Leu Ser Ile Val Ser Gln Pro Thr Phe Ile Asn Ser Val Leu Pro
 20 25 30
 Ile Ser Ala Ala Leu Pro Ser Leu Asp Gln Lys Lys Arg Gly Gly His
 35 40 45
 Lys Ala Cys Cys Leu Leu Thr Pro Pro Pro Pro Pro Leu Phe Pro Pro
 50 55 60
 Pro Phe Phe Arg Gly Gly Arg Ser Pro Leu Leu Ser Pro Asp Met Lys
 65 70 75 80
 Asn Leu Met Leu Glu Leu Glu Thr Ser Gln Ser Pro Cys Met Gln Gly
 85 90 95

Ser Leu Gly Ser Pro Gly Pro Pro Gly Pro Gln Gly Pro Pro Gly Leu
 100 105 110
 Pro Gly Lys Thr Gly Pro Lys Gly Glu Lys Gly Arg Pro Gly Pro Pro
 115 120 125
 Gly Val Pro Gly Met Pro Gly Pro Ile Gly Trp Pro Gly Pro Glu Gly
 130 135 140
 Pro Arg Gly Glu Lys Gly Asp Leu Gly Met Met Gly Leu Pro Gly Ser
 145 150 155 160
 Arg Gly Pro Met Gly Ser Lys Gly Tyr Pro Gly Ser Arg Gly Glu Lys
 165 170 175
 Gly Ser Arg Gly Glu Lys Gly Asp Leu Gly Pro Lys Gly Glu Lys Gly
 180 185 190
 Phe Pro Gly Phe Pro Gly Met Leu Gly Gln Lys Gly Glu Met Gly Pro
 195 200 205
 Lys Gly Glu Pro Gly Ile Ala Gly His Arg Gly Pro Thr Gly Arg Pro
 210 215 220
 Gly Lys Arg Gly Lys Gln Gly Gln Lys Gly Asp Ser Gly Val Met Gly
 225 230 235 240
 Pro Pro Gly Lys Pro Gly Pro Ser Gly Gln Pro Gly Arg Pro Gly Pro
 245 250 255
 Pro Gly Pro Pro Pro Ala Asp Phe Cys Gly Gln Gln Pro Gly Gly Ala
 260 265 270

<210> 27
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 27
 Met Pro Pro Leu Trp Ala Leu Leu Ala Leu Gly Cys Leu Arg Phe Gly
 1 5 10 15
 Ser Ala Val Asn Leu Gln Pro Gln Leu Ala Ser Val Thr Phe Ala Thr
 20 25 30
 Asn Asn Pro Thr Leu Thr Thr Val Ala Leu Glu Lys Pro Leu Cys Met
 35 40 45
 Phe Asp Ser Lys Glu Ala Leu Thr Gly Thr His Glu Val Tyr Leu Tyr
 50 55 60
 Val Leu Val Asp Ser Gly Ser Ser Met Ser Trp Ser Ile Cys Pro Arg
 65 70 75 80

Ala Trp

<210> 28

<211> 77

<212> PRT

<213> Homo sapiens

<400> 28

Met	Lys	Ala	Thr	Ile	Ile	Leu	Leu	Leu	Leu	Ala	Gln	Val	Ser	Trp	Ala
1				5					10					15	

Gly	Pro	Phe	Gln	Gln	Arg	Gly	Leu	Phe	Asp	Phe	Met	Leu	Glu	Asp	Glu
			20					25					30		

Ala	Ser	Gly	Ile	Gly	Pro	Glu	Val	Pro	Asp	Asp	Arg	Asp	Phe	Glu	Pro
		35					40					45			

Ser	Leu	Gly	Pro	Val	Cys	Pro	Phe	Arg	Cys	Gln	Cys	His	Leu	Arg	Val
	50					55					60				

Val	Gln	Cys	Ser	Asp	Leu	Gly	Ile	Asp	Ser	Cys	Gln	Gln
65					70					75		

<210> 29

<211> 195

<212> PRT

<213> Homo sapiens

<400> 29

Met	Arg	Leu	Leu	Ala	Phe	Leu	Ser	Leu	Leu	Ala	Leu	Val	Leu	Gln	Glu
1				5					10					15	

Thr	Gly	Thr	Ala	Ser	Leu	Pro	Arg	Lys	Glu	Arg	Lys	Arg	Arg	Glu	Glu
			20					25					30		

Gln	Met	Pro	Arg	Glu	Gly	Asp	Ser	Phe	Glu	Val	Leu	Pro	Leu	Arg	Asn
		35					40					45			

Asp	Val	Leu	Asn	Pro	Asp	Asn	Tyr	Gly	Glu	Val	Ile	Asp	Leu	Ser	Asn
	50					55					60				

Tyr	Glu	Glu	Leu	Thr	Asp	Tyr	Gly	Asp	Gln	Leu	Pro	Glu	Val	Lys	Val
65					70					75				80	

Thr	Ser	Leu	Ala	Pro	Ala	Thr	Ser	Ile	Ser	Pro	Ala	Lys	Ser	Thr	Thr
				85					90					95	

Ala	Pro	Gly	Thr	Pro	Ser	Ser	Asn	Pro	Thr	Met	Thr	Arg	Pro	Thr	Thr
			100					105					110		

Ala	Gly	Leu	Leu	Leu	Ser	Ser	Gln	Pro	Asn	His	Gly	Leu	Pro	Thr	Cys
		115					120					125			

Leu Val Cys Val Cys Leu Gly Ser Ser Val Tyr Cys Asp Asp Ile Asp
 130 135 140

Leu Glu Asp Ile Pro Pro Leu Pro Arg Arg Thr Ala Tyr Leu Tyr Ala
 145 150 155 160

Arg Phe Asn Arg Ile Ser Arg Ile Arg Ala Glu Asp Phe Lys Gly Leu
 165 170 175

Arg Pro His Pro Pro Arg Glu Pro Val Gly Ser Ser Ala Arg Ala Ala
 180 185 190

Gln Trp His
 195

<210> 30

<211> 168

<212> PRT

<213> Homo sapiens

<400> 30

Met Ser Ser Phe Gly Tyr Arg Thr Leu Thr Val Ala Leu Phe Thr Leu
 1 5 10 15

Ile Cys Cys Pro Gly Ser Asp Glu Lys Val Phe Glu Val His Val Arg
 20 25 30

Pro Lys Lys Leu Ala Val Glu Pro Lys Gly Ser Leu Glu Val Asn Cys
 35 40 45

Ser Thr Thr Cys Asn Gln Pro Glu Val Gly Gly Leu Glu Thr Ser Leu
 50 55 60

Asp Lys Ile Leu Leu Asp Glu Gln Ala Gln Trp Lys His Tyr Leu Val
 65 70 75 80

Ser Asn Ile Ser His Asp Thr Val Leu Gln Cys His Phe Thr Cys Ser
 85 90 95

Gly Lys Gln Glu Ser Met Asn Ser Asn Val Ser Val Tyr Gln Pro Val
 100 105 110

Ser Asp Ser Gln Met Val Ile Ile Val Thr Val Val Ser Val Leu Leu
 115 120 125

Ser Leu Phe Val Thr Ser Val Leu Leu Cys Phe Ile Phe Gly Gln His
 130 135 140

Leu Arg Gln Gln Arg Met Gly Thr Tyr Gly Val Arg Ala Ala Trp Arg
 145 150 155 160

Arg Leu Pro Gln Ala Phe Arg Pro
 165

<210> 31
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 31
 Met Pro Pro Leu Trp Ala Leu Leu Ala Leu Gly Cys Leu Arg Phe Gly
 1 5 10 15
 Ser Ala Val Asn Leu Gln Pro Gln Leu Ala Ser Val Thr Phe Ala Thr
 20 25 30
 Asn Asn Pro Thr Leu Thr Thr Val Ala Leu Glu Lys Pro Leu Cys Met
 35 40 45
 Phe Asp Ser Lys Glu Ala Leu Thr Gly Thr His Glu Val Tyr Leu Tyr
 50 55 60
 Val Leu Val Asp Ser Val Thr Cys Pro Ala Trp Met Pro Leu Gly Met
 65 70 75 80
 Cys Pro Arg Pro His Arg Ser
 85

<210> 32
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 32
 Met Gly Ser Leu Phe Pro Leu Ser Leu Leu Phe Phe Leu Ala Ala Ala
 1 5 10 15
 Tyr Pro Gly Val Gly Ser Ala Leu Gly Arg Arg Thr Lys Arg Ala Gln
 20 25 30
 Ser Pro Lys Gly Ser Pro Leu Ala Pro Ser Gly Thr Ser Val Pro Phe
 35 40 45
 Trp Val Arg Met Asn Pro Glu Phe Val Ala Val Gln Pro Gly Lys Ser
 50 55 60
 Val Gln Leu Asn Cys Ser Asn Ser Cys Pro Gln Pro Gln Asn Ser Ser
 65 70 75 80
 Leu Arg Thr Pro Leu Arg Gln Gly Lys Thr Leu Arg Gly Pro Gly Trp
 85 90 95
 Val Ser Tyr Gln Leu Leu Asp Val Arg Ala Trp Ser Ser Leu Ala His
 100 105 110
 Cys Leu Val Thr Cys Ala Gly Lys Thr Arg Trp Ala Thr Ser Arg Ile
 115 120 125
 Thr Ala Tyr Ser Val Pro Gly Gly Leu Leu Gly Gly Asp Pro Glu Ala
 130 135 140

Trp Lys Pro Gly His Leu Phe Arg Lys Pro Gly Ala Leu His Arg Pro
 145 150 155 160
 Gly Ser Gly Gln Arg Asp Leu Asp Leu Arg Val Cys Cys Trp Thr Pro
 165 170 175
 Arg Leu Leu Ala Ala Arg Asp Leu Pro Arg Ala Pro Gln Ser Arg Arg
 180 185 190
 Pro Gly Gly Pro Gln Gln Leu Gly Thr His Tyr Thr Asp Ala Arg
 195 200 205

<210> 33
 <211> 259
 <212> PRT
 <213> Homo sapiens

<400> 33
 Met Gly Leu Leu Leu Val Pro Leu Leu Leu Leu Pro Gly Ser Tyr
 1 5 10 15
 Gly Leu Pro Phe Tyr Asn Gly Phe Tyr Tyr Ser Asn Ser Ala Asn Asp
 20 25 30
 Gln Asn Leu Gly Asn Gly His Gly Lys Asp Leu Leu Asn Gly Val Lys
 35 40 45
 Leu Val Val Glu Thr Pro Glu Glu Thr Leu Phe Thr Tyr Gln Gly Ala
 50 55 60
 Ser Val Ile Leu Pro Cys Arg Tyr Arg Tyr Glu Pro Ala Leu Val Ser
 65 70 75 80
 Pro Arg Arg Val Arg Val Lys Trp Trp Lys Leu Ser Glu Asn Gly Ala
 85 90 95
 Pro Glu Lys Asp Val Leu Val Ala Ile Gly Leu Arg His Arg Ser Phe
 100 105 110
 Gly Asp Tyr Gln Gly Arg Val His Leu Arg Gln Asp Lys Glu His Asp
 115 120 125
 Val Ser Leu Glu Ile Gln Asp Leu Arg Leu Glu Asp Tyr Gly Arg Tyr
 130 135 140
 Arg Cys Glu Val Ile Asp Gly Leu Glu Asp Glu Ser Gly Leu Val Glu
 145 150 155 160
 Leu Glu Leu Arg Gly Arg Val Tyr Tyr Leu Glu His Pro Glu Lys Leu
 165 170 175
 Thr Leu Thr Glu Ala Arg Glu Ala Cys Gln Glu Asp Asp Ala Thr Ile
 180 185 190
 Ala Lys Val Gly Gln Leu Phe Ala Ala Trp Lys Phe His Gly Leu Asp
 195 200 205

Arg Cys Asp Ala Gly Trp Leu Ala Asp Gly Ser Val Arg Tyr Pro Val
 210 215 220

Val His Pro His Pro Asn Cys Gly Pro Pro Glu Pro Gly Val Arg Ser
 225 230 235 240

Phe Gly Phe Pro Asp Pro Gln Ser Arg Leu Tyr Gly Val Tyr Cys Tyr
 245 250 255

Arg Gln His

<210> 34
 <211> 168
 <212> PRT
 <213> Homo sapiens

<400> 34
 Met Ile Ser Leu Pro Gly Pro Leu Val Thr Asn Leu Leu Arg Phe Leu
 1 5 10 15

Phe Leu Gly Leu Ser Ala Leu Ala Pro Pro Ser Arg Ala Gln Leu Gln
 20 25 30

Leu His Leu Pro Ala Asn Arg Leu Gln Ala Val Glu Gly Gly Glu Val
 35 40 45

Val Leu Pro Ala Trp Tyr Thr Leu His Gly Glu Val Ser Ser Ser Gln
 50 55 60

Pro Trp Glu Val Pro Phe Val Met Trp Phe Phe Lys Gln Lys Glu Lys
 65 70 75 80

Glu Gly Gln Val Leu Ser Tyr Ile Asn Gly Val Thr Thr Ser Lys Pro
 85 90 95

Gly Val Ser Leu Val Tyr Ser Met Pro Ser Arg Asn Leu Ser Leu Arg
 100 105 110

Leu Glu Gly Leu Gln Glu Lys Asp Ser Gly Pro Tyr Ser Cys Ser Val
 115 120 125

Asn Val Gln Asp Lys Gln Gly Lys Ser Arg Gly His Ser Ile Lys Thr
 130 135 140

Leu Glu Leu Asn Val Leu Gly Cys Ala Pro Cys Gly Gly Lys Arg Asp
 145 150 155 160

Pro Glu Leu Pro Val Ser Lys Glu
 165

<210> 35
 <211> 373
 <212> PRT
 <213> Homo sapiens

<400> 35

Met	Ala	Pro	Arg	Thr	Leu	Trp	Ser	Cys	Tyr	Leu	Cys	Cys	Leu	Leu	Thr
1				5					10					15	
Ala	Ala	Ala	Gly	Ala	Ala	Ser	Tyr	Pro	Pro	Arg	Gly	Phe	Ser	Leu	Tyr
			20					25					30		
Thr	Gly	Ser	Ser	Gly	Ala	Leu	Ser	Pro	Gly	Gly	Pro	Gln	Ala	Gln	Ile
		35					40					45			
Ala	Pro	Arg	Pro	Ala	Ser	Arg	His	Arg	Asn	Trp	Cys	Ala	Tyr	Val	Val
	50					55					60				
Thr	Arg	Thr	Val	Ser	Cys	Val	Leu	Glu	Asp	Gly	Val	Glu	Thr	Tyr	Val
65					70					75					80
Lys	Tyr	Gln	Pro	Cys	Ala	Trp	Gly	Gln	Pro	Gln	Cys	Pro	Gln	Ser	Ile
				85					90					95	
Met	Tyr	Arg	Arg	Phe	Leu	Arg	Pro	Arg	Tyr	Arg	Val	Ala	Tyr	Lys	Thr
			100					105					110		
Val	Thr	Asp	Met	Glu	Trp	Arg	Cys	Cys	Gln	Gly	Tyr	Gly	Gly	Asp	Asp
		115					120					125			
Cys	Ala	Glu	Ser	Pro	Ala	Pro	Ala	Leu	Gly	Pro	Ala	Ser	Ser	Thr	Pro
	130					135					140				
Arg	Pro	Leu	Ala	Arg	Pro	Ala	Arg	Pro	Asn	Leu	Ser	Gly	Ser	Ser	Ala
145					150					155					160
Gly	Ser	Pro	Leu	Ser	Gly	Leu	Gly	Gly	Glu	Gly	Pro	Ala	Gly	Glu	Ala
				165					170					175	
Gly	Pro	Pro	Gly	Pro	Pro	Gly	Leu	Gln	Gly	Pro	Pro	Gly	Pro	Ala	Gly
			180					185					190		
Pro	Pro	Gly	Ser	Pro	Gly	Lys	Asp	Gly	Gln	Glu	Gly	Pro	Ile	Gly	Pro
		195					200					205			
Pro	Gly	Pro	Gln	Gly	Glu	Gln	Gly	Val	Glu	Gly	Ala	Pro	Ala	Ala	Pro
	210					215					220				
Val	Pro	Gln	Val	Ala	Phe	Ser	Ala	Ala	Leu	Ser	Leu	Pro	Arg	Ser	Glu
225					230					235					240
Pro	Gly	Thr	Val	Pro	Phe	Asp	Arg	Val	Leu	Leu	Asn	Asp	Gly	Gly	Tyr
				245					250					255	
Tyr	Asp	Pro	Glu	Thr	Gly	Val	Phe	Thr	Ala	Pro	Leu	Ala	Gly	Arg	Tyr
		260						265					270		
Leu	Leu	Ser	Ala	Val	Leu	Thr	Gly	His	Arg	His	Glu	Lys	Val	Glu	Ala
		275					280					285			
Val	Leu	Ser	Arg	Ser	Asn	Gln	Gly	Val	Ala	Arg	Val	Asp	Ser	Gly	Gly
	290					295					300				

Tyr Glu Pro Glu Gly Leu Glu Asn Lys Pro Val Ala Glu Ser Gln Pro
 305 310 315 320
 Ser Pro Gly Thr Leu Gly Val Phe Ser Leu Ile Leu Pro Leu Gln Ala
 325 330 335
 Gly Asp Thr Val Cys Val Asp Leu Val Met Gly Gln Leu Ala His Ser
 340 345 350
 Glu Glu Pro Leu Thr Ile Phe Ser Gly Ala Leu Leu Tyr Gly Asp Pro
 355 360 365
 Glu Leu Glu His Ala
 370

<210> 36
 <211> 237
 <212> PRT
 <213> Homo sapiens

<400> 36
 Met Ile Ile Leu Ile Tyr Leu Phe Leu Leu Leu Trp Glu Asp Thr Gln
 1 5 10 15
 Gly Trp Gly Phe Lys Asp Gly Ile Phe His Asn Ser Ile Trp Leu Glu
 20 25 30
 Arg Ala Ala Gly Val Tyr His Arg Glu Ala Arg Ser Gly Lys Tyr Lys
 35 40 45
 Leu Thr Tyr Ala Glu Ala Lys Ala Val Cys Glu Phe Glu Gly Gly His
 50 55 60
 Leu Ala Thr Tyr Lys Gln Leu Glu Ala Ala Arg Lys Ile Gly Phe His
 65 70 75 80
 Val Cys Ala Ala Gly Trp Met Ala Lys Gly Arg Val Gly Tyr Pro Ile
 85 90 95
 Val Lys Pro Gly Pro Asn Cys Gly Phe Gly Lys Thr Gly Ile Ile Asp
 100 105 110
 Tyr Gly Ile Arg Leu Asn Arg Ser Glu Arg Trp Asp Ala Tyr Cys Tyr
 115 120 125
 Asn Pro His Ala Lys Glu Cys Gly Gly Val Phe Thr Asp Pro Lys Gln
 130 135 140
 Ile Phe Lys Ser Pro Gly Phe Pro Asn Glu Tyr Glu Asp Asn Gln Ile
 145 150 155 160
 Cys Tyr Trp His Ile Arg Leu Lys Tyr Cys Gly Asp Glu Leu Pro Asp
 165 170 175
 Asp Ile Ile Ser Thr Gly Asn Val Met Thr Leu Lys Phe Leu Ser Asp
 180 185 190

Ala Ser Val Thr Ala Gly Gly Phe Gln Ile Lys Tyr Val Ala Met Asp
 195 200 205

Pro Val Ser Lys Ser Ser Gln Gly Lys Asn Thr Ser Thr Thr Ser Thr
 210 215 220

Gly Asn Lys Asn Phe Leu Ala Gly Arg Phe Ser His Leu
 225 230 235

<210> 37

<211> 163

<212> PRT

<213> Homo sapiens

<400> 37

Met Leu Leu Ile Leu Leu Ser Val Ala Leu Leu Ala Leu Ser Ser Ala
 1 5 10 15

Glu Ser Ala Ser Glu Asp Val Ser Gln Glu Glu Ser Leu Phe Leu Ile
 20 25 30

Ser Gly Lys Pro Glu Gly Arg Arg Pro Gln Gly Gly Asn Gln Pro Gln
 35 40 45

Arg Pro Pro Pro Pro Gly Lys Pro Gln Gly Pro Pro Pro Gln Gly
 50 55 60

Gly Asn Gln Ser Gln Gly Pro Pro Pro Pro Gly Lys Pro Glu Gly
 65 70 75 80

Pro Pro Pro Gln Glu Gly Asn Lys Ser Arg Ser Ala Arg Ser Pro Pro
 85 90 95

Gly Lys Pro Gln Gly Pro Pro Gln Gln Glu Gly Asn Lys Pro Gln Gly
 100 105 110

Pro Pro Pro Pro Gly Lys Pro Gln Gly Pro Pro Pro Pro Gly Gly Asn
 115 120 125

Pro Gln Gln Pro Gln Ala Pro Pro Ala Gly Lys Pro Gln Gly Pro Pro
 130 135 140

Pro Pro Pro Gln Gly Gly Arg Pro Pro Arg Pro Ala Gln Gly Gln Gln
 145 150 155 160

Pro Pro Gln

<210> 38

<211> 207

<212> PRT

<213> Homo sapiens

<400> 38

Met Ser Lys Gln Arg Gly Thr Phe Ser Glu Val Ser Leu Ala Gln Asp
 1 5 10 15

Pro Lys Arg Gln Gln Arg Lys Pro Lys Gly Asn Lys Ser Ser Ile Ser
 20 25 30
 Gly Thr Glu Gln Glu Ile Phe Gln Val Glu Leu Asn Leu Gln Asn Pro
 35 40 45
 Ser Leu Asn His Gln Gly Ile Asp Lys Ile Tyr Asp Cys Gln Gly Leu
 50 55 60
 Leu Pro Pro Pro Glu Lys Leu Thr Ala Glu Val Leu Gly Ile Ile Cys
 65 70 75 80
 Ile Val Leu Met Ala Thr Val Leu Lys Thr Ile Val Leu Ile Pro Phe
 85 90 95
 Leu Glu Gln Asn Asn Ser Ser Pro Asn Thr Arg Thr Gln Lys Ala Arg
 100 105 110
 His Cys Gly His Cys Pro Glu Glu Trp Ile Thr Tyr Ser Asn Ser Cys
 115 120 125
 Tyr Tyr Ile Gly Lys Glu Arg Arg Thr Trp Glu Glu Ser Leu Leu Ala
 130 135 140
 Cys Thr Ser Lys Asn Ser Ser Leu Leu Ser Ile Asp Asn Glu Glu Glu
 145 150 155 160
 Met Lys Phe Leu Ala Ser Ile Leu Pro Ser Ser Trp Ile Gly Val Phe
 165 170 175
 Arg Asn Ser Ser His His Pro Trp Val Thr Ile Asn Gly Leu Ala Phe
 180 185 190
 Lys His Asn Thr Trp Lys Met Leu Ser Ser His Glu Ser Phe Ala
 195 200 205

<210> 39

<211> 531

<212> PRT

<213> Homo sapiens

<400> 39

Met Gly Pro Gly Glu Arg Ala Gly Gly Gly Gly Asp Ala Gly Lys Gly
 1 5 10 15
 Asn Ala Ala Gly Gly Gly Gly Gly Gly Arg Ser Ala Thr Thr Ala Gly
 20 25 30
 Ser Arg Ala Val Ser Ala Leu Cys Leu Leu Leu Ser Val Gly Ser Ala
 35 40 45
 Ala Ala Cys Leu Leu Leu Gly Val Gln Ala Ala Ala Leu Gln Gly Arg
 50 55 60
 Val Ala Ala Leu Glu Glu Arg Glu Leu Leu Arg Arg Ala Gly Pro
 65 70 75 80

Pro	Gly	Ala	Leu	Asp	Ala	Trp	Ala	Glu	Pro	His	Leu	Glu	Arg	Leu	Leu	
				85					90					95		
Arg	Glu	Lys	Leu	Asp	Gly	Leu	Ala	Lys	Ile	Arg	Thr	Ala	Arg	Glu	Ala	
				100					105					110		
Pro	Ser	Glu	Cys	Val	Cys	Pro	Pro	Gly	Pro	Pro	Gly	Arg	Arg	Gly	Lys	
				115					120					125		
Pro	Gly	Arg	Arg	Gly	Asp	Pro	Gly	Pro	Pro	Gly	Gln	Ser	Gly	Arg	Asp	
				130					135					140		
Gly	Tyr	Pro	Gly	Pro	Leu	Gly	Leu	Asp	Gly	Lys	Pro	Gly	Leu	Pro	Gly	
				145					150					155		
Pro	Lys	Gly	Glu	Lys	Gly	Asp	Gln	Gly	Gln	Asp	Gly	Ala	Ala	Gly	Pro	
				165					170					175		
Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Ala	Arg	Gly	Pro	Pro	Gly	Asp	Thr	
				180					185					190		
Gly	Lys	Asp	Gly	Pro	Arg	Gly	Ala	Gln	Ser	Pro	Ala	Gly	Pro	Lys	Gly	
				195					200					205		
Glu	Pro	Gly	Gln	Asp	Gly	Glu	Met	Gly	Pro	Lys	Gly	Pro	Pro	Gly	Pro	
				210					215					220		
Lys	Gly	Glu	Pro	Gly	Val	Pro	Gly	Lys	Lys	Gly	Asp	Asp	Gly	Thr	Pro	
				225					230					235		
Ser	Gln	Pro	Gly	Pro	Pro	Gly	Pro	Lys	Gly	Glu	Pro	Gly	Ser	Met	Gly	
				245					250					255		
Pro	Arg	Gly	Glu	Asn	Gly	Val	Asp	Gly	Ala	Pro	Gly	Pro	Lys	Gly	Glu	
				260					265					270		
Pro	Gly	His	Arg	Gly	Thr	Asp	Gly	Ala	Ala	Gly	Pro	Arg	Gly	Ala	Pro	
				275					280					285		
Gly	Leu	Lys	Gly	Glu	Gln	Gly	Asp	Thr	Val	Val	Ile	Asp	Tyr	Asp	Gly	
				290					295					300		
Arg	Ile	Leu	Asp	Ala	Leu	Lys	Gly	Pro	Pro	Gly	Pro	Gln	Gly	Pro	Pro	
				305					310					315		
Gly	Pro	Pro	Gly	Ile	Pro	Gly	Ala	Lys	Gly	Glu	Leu	Gly	Leu	Pro	Gly	
				325					330					335		
Ala	Pro	Gly	Ile	Asp	Gly	Glu	Lys	Gly	Pro	Lys	Gly	Gln	Lys	Gly	Asp	
				340					345					350		
Pro	Gly	Glu	Pro	Gly	Pro	Ala	Gly	Leu	Lys	Gly	Glu	Ala	Gly	Glu	Met	
				355					360					365		
Gly	Leu	Ser	Gly	Leu	Pro	Gly	Ala	Asp	Gly	Leu	Lys	Gly	Glu	Lys	Gly	
				370					375					380		

Glu Ser Ala Ser Asp Ser Leu Gln Glu Ser Leu Ala Gln Leu Ile Val
 385 390 395 400
 Glu Pro Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Pro Met Gly Leu
 405 410 415
 Gln Gly Ile Gln Gly Pro Lys Gly Leu Asp Gly Ala Lys Gly Glu Lys
 420 425 430
 Gly Ala Ser Gly Glu Arg Gly Pro Ser Gly Leu Pro Gly Pro Val Gly
 435 440 445
 Pro Pro Gly Leu Ile Gly Leu Pro Gly Thr Lys Gly Glu Lys Gly Arg
 450 455 460
 Pro Gly Glu Pro Gly Leu Asp Gly Phe Pro Gly Pro Arg Gly Glu Lys
 465 470 475 480
 Gly Asp Arg Ser Glu Arg Gly Glu Lys Gly Glu Arg Gly Val Pro Gly
 485 490 495
 Arg Lys Gly Val Lys Gly Gln Lys Gly Glu Pro Gly Pro Pro Gly Leu
 500 505 510
 Asp Gln Pro Cys Pro Val Gly Pro Asp Gly Leu Pro Val Pro Gly Cys
 515 520 525
 Trp His Lys
 530

<210> 40
 <211> 347
 <212> PRT
 <213> Homo sapiens

<400> 40
 Met Ile Thr Glu Gly Ala Gln Ala Pro Arg Leu Leu Leu Pro Pro Leu
 1 5 10 15
 Leu Leu Leu Leu Thr Leu Pro Ala Thr Gly Ser Asp Pro Val Leu Cys
 20 25 30
 Phe Thr Gln Tyr Glu Glu Ser Ser Gly Lys Cys Lys Gly Leu Leu Gly
 35 40 45
 Gly Gly Val Ser Val Glu Asp Cys Cys Leu Asn Thr Ala Phe Ala Tyr
 50 55 60
 Gln Lys Arg Ser Gly Gly Leu Cys Gln Pro Cys Arg Ser Pro Arg Trp
 65 70 75 80
 Ser Leu Trp Ser Thr Trp Ala Pro Cys Ser Val Thr Cys Ser Glu Gly
 85 90 95
 Ser Gln Leu Arg Tyr Arg Arg Cys Val Gly Trp Asn Gly Gln Cys Ser
 100 105 110

Gly	Lys	Val	Ala	Pro	Gly	Thr	Leu	Glu	Trp	Gln	Leu	Gln	Ala	Cys	Glu
		115					120					125			
Asp	Gln	Gln	Cys	Cys	Pro	Glu	Met	Gly	Gly	Trp	Ser	Gly	Trp	Gly	Pro
	130					135					140				
Trp	Glu	Pro	Cys	Ser	Val	Thr	Cys	Ser	Lys	Gly	Thr	Arg	Thr	Arg	Arg
145					150					155					160
Arg	Ala	Cys	Asn	His	Pro	Ala	Pro	Lys	Cys	Gly	Gly	His	Cys	Pro	Gly
				165					170					175	
Gln	Ala	Gln	Glu	Ser	Glu	Ala	Cys	Asp	Thr	Gln	Gln	Val	Cys	Pro	Met
			180					185					190		
Asp	Gly	Glu	Trp	Asp	Ser	Trp	Gly	Glu	Trp	Ser	Pro	Cys	Ile	Arg	Arg
		195					200					205			
Asn	Met	Lys	Ser	Ile	Ser	Cys	Gln	Glu	Ile	Pro	Gly	Gln	Gln	Ser	Arg
	210					215					220				
Gly	Arg	Thr	Cys	Arg	Gly	Arg	Lys	Phe	Asp	Gly	His	Arg	Cys	Ala	Gly
225					230					235					240
Gln	Gln	Gln	Asp	Ile	Arg	His	Cys	Tyr	Ser	Ile	Gln	His	Cys	Pro	Leu
				245					250					255	
Lys	Gly	Ser	Trp	Ser	Glu	Trp	Ser	Thr	Trp	Gly	Leu	Cys	Met	Pro	Pro
			260					265					270		
Cys	Gly	Pro	Asn	Pro	Thr	Arg	Ala	Arg	Gln	Arg	Leu	Cys	Thr	Pro	Leu
		275					280					285			
Leu	Pro	Lys	Tyr	Pro	Pro	Thr	Val	Ser	Met	Val	Glu	Gly	Gln	Gly	Glu
	290					295					300				
Lys	Asn	Val	Thr	Phe	Trp	Gly	Arg	Pro	Leu	Pro	Arg	Cys	Glu	Glu	Leu
305					310					315					320
Gln	Gly	Gln	Lys	Leu	Val	Val	Glu	Glu	Lys	Arg	Pro	Cys	Leu	His	Val
				325					330					335	
Pro	Ala	Cys	Lys	Asp	Pro	Glu	Glu	Glu	Glu	Leu					
			340					345							

```
<210> 41
<211> 366
<212> PRT
<213> Homo sapiens
```

```

<400> 41
Met Val Pro Pro Pro Pro Ser Arg Gly Gly Ala Ala Arg Gly Gln Leu
  1                    5                10                15
Gly Arg Ser Leu Gly Pro Leu Leu Leu Leu Leu Ala Leu Gly His Thr
          20                25                30

```

Trp	Thr	Tyr	Arg	Glu	Glu	Pro	Gln	Asp	Gly	Asp	Arg	Glu	Ile	Cys	Ser	35	40	45
Glu	Ser	Lys	Ile	Ala	Thr	Thr	Lys	Tyr	Pro	Cys	Leu	Lys	Ser	Ser	Gly	50	55	60
Glu	Leu	Thr	Thr	Cys	Tyr	Arg	Lys	Lys	Cys	Cys	Lys	Gly	Tyr	Lys	Phe	65	70	75
Val	Leu	Gly	Gln	Cys	Ile	Pro	Glu	Asp	Tyr	Asp	Val	Cys	Ala	Glu	Ala	85	90	95
Pro	Cys	Glu	Gln	Gln	Cys	Thr	Asp	Asn	Phe	Gly	Arg	Val	Leu	Cys	Thr	100	105	110
Cys	Tyr	Pro	Gly	Tyr	Arg	Tyr	Asp	Arg	Glu	Arg	His	Arg	Lys	Arg	Glu	115	120	125
Lys	Pro	Tyr	Cys	Leu	Asp	Ile	Asp	Glu	Cys	Ala	Ser	Ser	Asn	Gly	Thr	130	135	140
Leu	Cys	Ala	His	Ile	Cys	Ile	Asn	Thr	Leu	Gly	Ser	Tyr	Arg	Cys	Glu	145	150	155
Cys	Arg	Glu	Gly	Tyr	Ile	Arg	Glu	Asp	Asp	Gly	Lys	Thr	Cys	Thr	Arg	165	170	175
Gly	Asp	Lys	Tyr	Pro	Asn	Asp	Thr	Gly	His	Glu	Lys	Ser	Glu	Asn	Met	180	185	190
Val	Lys	Ala	Gly	Thr	Cys	Cys	Ala	Thr	Cys	Lys	Glu	Phe	Tyr	Gln	Met	195	200	205
Lys	Gln	Thr	Val	Leu	Gln	Leu	Lys	Gln	Lys	Ile	Ala	Leu	Leu	Pro	Asn	210	215	220
Asn	Ala	Ala	Asp	Leu	Gly	Lys	Tyr	Ile	Thr	Gly	Asp	Lys	Val	Leu	Ala	225	230	235
Ser	Asn	Thr	Tyr	Leu	Pro	Gly	Pro	Pro	Gly	Leu	Pro	Gly	Gly	Gln	Gly	245	250	255
Pro	Pro	Gly	Ser	Pro	Gly	Pro	Lys	Gly	Ser	Pro	Gly	Phe	Pro	Gly	Met	260	265	270
Pro	Gly	Pro	Pro	Gly	Gln	Pro	Gly	Pro	Arg	Gly	Ser	Met	Gly	Pro	Met	275	280	285
Gly	Pro	Ser	Pro	Asp	Leu	Ser	His	Ile	Lys	Gln	Gly	Arg	Arg	Gly	Pro	290	295	300
Val	Gly	Pro	Pro	Gly	Ala	Pro	Gly	Arg	Asp	Gly	Ser	Lys	Gly	Glu	Arg	305	310	315
Gly	Ala	Pro	Gly	Pro	Arg	Gly	Ser	Pro	Val	Ser	Ser	Thr	Leu	Cys	Pro	325	330	335

Ala Ser Pro Gly Glu Arg Ser Gln Gly Cys Ser Ser Asp Glu Pro Ile
 340 345 350

Gly Thr Pro Trp Phe Phe Arg Leu Pro Ala Thr Tyr Ala Gly
 355 360 365

<210> 42

<211> 247

<212> PRT

<213> Homo sapiens

<400> 42

Met Val Val Leu Asn Pro Met Thr Leu Gly Ile Tyr Leu Gln Leu Phe
 1 5 10 15

Phe Leu Ser Ile Val Ser Gln Pro Thr Phe Ile Asn Ser Val Leu Pro
 20 25 30

Ile Ser Ala Ala Leu Pro Ser Leu Asp Gln Lys Lys Arg Gly Gly His
 35 40 45

Lys Ala Cys Cys Leu Leu Thr Pro Pro Pro Pro Pro Leu Phe Pro Pro
 50 55 60

Pro Phe Phe Arg Gly Gly Arg Ser Pro Gly Pro Pro Gly Leu Pro Gly
 65 70 75 80

Lys Thr Gly Pro Lys Gly Glu Lys Gly Glu Leu Gly Arg Pro Gly Arg
 85 90 95

Lys Gly Arg Pro Gly Pro Pro Gly Val Pro Gly Met Pro Gly Pro Ile
 100 105 110

Gly Trp Pro Gly Pro Glu Gly Pro Arg Gly Glu Lys Gly Asp Gln Gly
 115 120 125

Met Met Gly Leu Pro Gly Ser Arg Gly Pro Met Gly Ser Lys Gly Tyr
 130 135 140

Pro Gly Ser Arg Gly Glu Lys Gly Ser Arg Gly Glu Lys Gly Gly Leu
 145 150 155 160

Gly Pro Lys Gly Glu Lys Gly Phe Pro Gly Phe Pro Gly Met Leu Gly
 165 170 175

Gln Lys Gly Gly Met Gly Pro Lys Gly Glu Pro Gly Ile Ala Gly His
 180 185 190

Arg Gly Pro Thr Gly Arg Pro Gly Lys Arg Gly Lys Gln Gly Gln Lys
 195 200 205

Gly Asp Ser Gly Val Met Gly Pro Pro Gly Lys Pro Gly Pro Ser Gly
 210 215 220

Gln Pro Gly Arg Pro Gly Pro Pro Gly Pro Pro Pro Ala Asp Phe Cys
 225 230 235 240

Gly Gln Gln Pro Gly Gly Ala
245

<210> 43
<211> 4720
<212> DNA
<213> Homo sapiens

<400> 43
ctggaggccg gggcgggacg cgttgtgcag cgggtaagcg cacggccgag cgagcatgga 60
gggggaccgg gtggccgggc ggccggtgct gtcgtcggtta ccagtgcctac tgctgctgca 120
gttgctaata ttgcggggccg cggcgctgca cccagacgag ctcttccac acggggagtc 180
gtggggggac cagctcctgc aggaaggcga cgacgaaagc tcagccgtgg tgaagctggc 240
gaatccccctg cacttctacg aagcccagatt cagcaacctc tacgtgggca ccaacggcat 300
catctccact caggacttcc ccagggaaac gcagtatgtg gactatgatt tccccaccga 360
cttcccggcc atcgcccctt ttctggcgga catcgacacg agccacggca gaggccgagt 420
cctgtaccga gaggacacct cccccgcagt gctgggcttg gccgcccgt atgtgcgcgc 480
tggtctcccg cgctctgcgc gctttacccc caccacgccc ttcttgcca cctgggagca 540
ggtaggcgct tacgaggagg tcaagcgcg ggcgctgccc tcgggagagc tgaacacttt 600
ccaggcagtt ttggcatctg atgggtctga tagctacgcc ctctttcttt atcctgccaa 660
cggcctgcag ttctttgaa cccgcccac agagtcttac aatgtccagc ttcagcttcc 720
agctcgggtg ggcttctgcg gaggggagcg tgatgatctg aagtcagaag gaccatattt 780
cagcttgact agcactgagc agtctgtgaa aaatctctat caactaagca acctggggat 840
ccctggagtg tgggctttcc atatcggcag cacttccccg ttggacaatg tcaggccagc 900
tgcagttgga gacctttccg ctgcccactc ttctgttccc ctgggacgtt ccttcagcca 960
tgctacagcc ctggaaagtg actataatga ggacaatttg gattactacg atgtgaatga 1020
ggaggaagct gaataccttc cgggtgaacc agaggaggca ttgaatggcc acagcagcat 1080
tgatgtttcc ttccaatcca aagtggatac aaagccttta gaggaatctt ccaccttgga 1140
tcctcacacc aaagaaggaa catctctggg agaggtaggg ggcccagatt taaaaggcca 1200
agttgagccc tgggatgaga gagagaccag aagcccagct ccaccagagg tagacagaga 1260
ttcactggct ccttcctggg aaaccccacc accgtacccc gaaaacggaa gcatccagcc 1320
ctacccagat ggagggccag tgcttcggga aatggatgtt cccccagctc atcctgaaga 1380
agaaattgtt cttcgaagtt accctgcttc agatcacact acacccttaa gtcgagggac 1440
gtagtaggtg ggactggaag acaacatagg ttccaacacc gaggtcttca cgtataatgc 1500
tgccaacaag gaaacctgtg aacacaacca cagacaatgc tcccggcatg ccttctgcac 1560
ggactatgcc actggcttct gctgccactg ccaatccaag ttttatggaa atgggaagca 1620
ctgtctgcct gaaggggac ctcaccgagt gaatgggaaa gtgagtggcc acctccacgt 1680
gggccataca cccgtgcact tcaactgatgt ggacctgcat gcgtatatcg tgggcaatga 1740
tggcagagcc tacacggcca tcagccacat cccacagcca gcagcccagg ccctcctccc 1800
cctcacacca attggaggcc tgtttggctg gctctttgct ttagaaaaac ctggctctga 1860
gaacggcttc agcctcgag gtgctgcctt taccatgac atggaagtta cattctacc 1920
gggagaggag acggttcgta tcaactcaaac tgctgaggga cttgacctag agaactacct 1980
gagcattaag accaaccattc aaggccaggt gccttacgtc ccagcaaatt tcacagccca 2040
catctctccc tacaaggagc tgtaccacta ctccgactcc actgtgacct ctacaagttc 2100
cagagactac tctctgactt ttgggtgcaat caaccaaaca tggctctacc gcatccacca 2160
gaacatcact taccaggtgt gcaggcacgc cccagacac ccgtccttcc ccaccaccca 2220
gcagctgaac gtggaccggg tctttgcctt gtataatgac gaagaaagag tgcttagatt 2280
tgctgtgacc aatcaaatgt gcccggtcaa agaagattca gacccactc cggatgaatcc 2340
ttgctatgat gggagccaca tgtgtgacac aacagcacgg tgccatccag ggacaggtgt 2400
agattacacc tgtgagtgcg catctgggta ccaggagat ggacggaact gtgtggatga 2460
aaatgaatgt gcaactggct tcatcgctg tggccccaac tctgtatgta tcaacttgcc 2520
tggaagctac aggtgtgagt gccggagtgg ttatgagttt gcagatgacc ggcatacttg 2580
catctatgta gatgaatgta cagaaaacag atgtcaccct gcagctacct gctacaatac 2640
tcctggttcc ttctcctgcc gttgtcaacc cggatattat ggggatggat ttcagtgcac 2700
acctgactcc acctcaagcc tgacaccctg tgaacaacag cagcgccatg cccaggccca 2760
gtatgcctac cctggggccc gggtccacat cccccaatgc gacgagcagg gcaacttcct 2820
gcccctacag tgtcatggca gcaactggtt ctgctgggtg gtggaccctg atggtcatga 2880

agttcctggg	accagactc	cacctggctc	caccccgcc	cactgtggac	catcaccaga	2940
gcccacccag	agggcccccga	ccatctgtga	gcgctggagg	gaaaacctgc	tggagcacta	3000
cgggtggcacc	ccccgggatg	accagtacgt	gccccagtgc	gatgacctgg	gccacttcac	3060
ccccctgcag	tgccacggaa	agagcgactt	ctgctgggtg	gtggacaaaag	atggcagaga	3120
ggtgcagggc	accgcctccc	agccaggcac	cacccctgcg	tgtataccca	ccgtcgctcc	3180
acccatgggc	cggccacgc	cccgccaga	tgtgacctct	ccatctgtgg	gcaccttcct	3240
gctctatact	cagggccagc	agattggcta	cttacctctc	aatggcacca	ggcttcagaa	3300
ggatgcagct	aagacctgc	tgtctctgca	tggtccata	atcgtgggaa	ttgattacga	3360
ctgccgggag	aggatgggtg	actggacaga	tgttgcctga	cggacaatca	gccgtgccgg	3420
tctggaactg	ggagcagagc	ctgagacgat	cgtgaattca	ggtctgataa	gccctgaagg	3480
acttgccata	gaccacatcc	gcagaacaat	gtactggacg	gacagtgtcc	tgataaagat	3540
agagagcgcc	ctgctggatg	gctctgagcg	caaggctctc	ttctacacag	atctggtgaa	3600
tccccgtgcc	atcgctgtgg	atccaatccg	aggcaacttg	tactggacag	actggaatag	3660
agaagctcct	aaaattgaaa	cgctcatctt	agatggagaa	aacagaagaa	ttctgatcaa	3720
tacagacatt	ggattgcccc	atggcttaac	ctttgacctt	ttctctaaac	tgctctgctg	3780
ggcagatgca	ggaaccacaaa	aactggagtg	tacactacct	gatggaactg	gacggcgtgt	3840
cattcaaaac	aacctcaagt	accccttcag	catcgtaagc	tatgcagatc	acttctacca	3900
cacagactgg	aggagggatg	gtgttgtatc	agtaaataaa	catagtggcc	agtttactga	3960
tgagtatctc	ccagaacaac	gatctcacct	ctacgggata	actgcagtct	acccctactg	4020
cccaacagga	agaaagtaag	tacagtaatg	taaaggaaga	cttggagttt	acaatcagaa	4080
cctggaccct	aaagaacagt	gactgcaaa	gcaaagaaa	taaaaaagga	attggccatt	4140
agacgttcct	agcatcccaa	gatgaacatt	ttgtagtga	aaaagacttt	tgtgaaaagc	4200
tgatacctca	atctttacta	ctgtattttt	aaaaatgaag	gttggttattg	caagttaaag	4260
aaggtaacag	aatttttaact	gttgcttatt	aaagcaactt	cttgtaaaca	tttatcatta	4320
atatttaaaa	gatcaaatc	attcaactaa	gaattagagt	ttaagactct	aaacctgatt	4380
tttgccatgg	attccttctg	gccaagaaat	taaagcacat	gtgatcaata	taacaatata	4440
atcctaaacc	ttgacagttg	gagaagccaa	tgcagaactg	atgggaaagg	accaattatt	4500
tatagtttcc	caacaaaagt	tctaagattt	tttacctctg	catcagtga	tttctattta	4560
tatcaaaagg	tgctaaaatg	attcaatttg	cattttctga	tcctgtagt	cctctataga	4620
agtaccacac	gaaagtaaag	tatcacattt	ataaatacca	aagatgtaac	aatttttaaaa	4680
ttttctagat	tactccaata	aagtgtttta	agttttccta			4720

<210> 44

<211> 6633

<212> DNA

<213> Homo sapiens

<400> 44

ttctttcaag	aagatcaggg	acaactgatt	tgaagtctac	tctgtgcttc	taaatcccca	60
attctgctga	aagtgaata	ccctagagcc	ctagagcccc	agcagcacc	agccaaaccc	120
acctccacca	tgggggcat	gactcagctg	ttggcaggtg	tctttcttgc	tttccttgcc	180
ctcgctaccg	aaggtgggg	cctcaagaaa	gtcatccggc	acaagcgaca	gagtgggggtg	240
aacgccaccc	tgccagaaga	gaaccagcca	gtggtgttta	accacgttta	caacatcaag	300
ctgccagtgg	gatcccagtg	ttcggtggat	ctggagtcag	ccagtgggga	gaaagacctg	360
gcaccgcctt	cagagcccag	cgaaagcttt	caggagcaca	cagtagatgg	ggaaaaccag	420
attgtcttca	cacatcgcat	caacatcccc	cgccgggcct	gtggctgtgc	cgcagccctt	480
gatgttaagg	agctgctgag	cagactggag	gagctggaga	acctggtgtc	ttccctgagg	540
gagcaatgta	ctgcaggagc	aggctgctgt	ctccagcctg	ccacaggccg	cttggacacc	600
aggcccttct	gtagcggctg	gggcaacttc	agcactgaag	gatgtggctg	tgtctgcgaa	660
cctggctgga	aaggcccca	ctgctctgag	cccgaatgtc	caggcaactg	tcaccttcga	720
ggccggtgca	ttgatgggca	gtgcatctgt	gacgacggct	tcacgggcga	ggactgcagc	780
cagctggctt	gccccagcga	ctgcaatgac	cagggcaagt	gcgtgaatgg	agtctgcatc	840
tgtttcgaag	gctacgccgg	ggctgactgc	agccgtgaaa	tctgccagt	gccctgcagt	900
gaggagcacg	gcacatgtgt	agatggcttg	tgtgtgtgcc	acgatggctt	tgacaggat	960
gactgcaaca	agcctctgtg	tctcaacaat	tgctacaacc	gtggacgatg	cgtggagaa	1020
gagtgcgtgt	gtgatgagg	tttcacgggc	gaagactgca	gtgagctcat	ctgccccaat	1080
gactgcttcg	accggggccg	ctgcatcaat	ggcacctgct	actgcgaaga	aggcttcaca	1140

ggtgaagact	gcgggaaacc	cacctgcccc	catgcctgcc	acacccaggg	ccggtgtgag	1200
gaggggcagt	gtgtatgtga	tgagggcttt	gccggtgtgg	actgcagcga	gaagaggtgt	1260
cctgctgact	gtcacaaatcg	tggccgctgt	gtagacgggc	ggtgtgagt	tgatgatggt	1320
ttcactggag	ctgactgtgg	ggagctcaag	tgtcccaatg	gctgcagtgg	ccatggccgc	1380
tgtgtcaatg	ggcagtgtgt	gtgtgatgag	ggctatactg	gggaggactg	cagccagcta	1440
cggtgcccc	atgactgtca	cagtcggggc	cgctgtgtcg	agggcaaagt	tgtatgtgag	1500
caaggcttca	agggctatga	ctgcagtgtg	atcagctgcc	ctaagtactg	tcaccagcac	1560
ggccgctgtg	tgaatggcat	gtgtgtttgt	gatgacggct	acacagggga	agactgccgg	1620
gatcgccaat	gccccaggg	ctgcagcaac	aggggcctct	gtgtggacgg	acagtgcgtc	1680
tgtgaggacg	gcttcaccgg	ccctgactgt	gcagaactct	cctgtccaaa	tgactgccat	1740
ggccgggggtc	gctgtgtgaa	tgggcagtgc	gtgtgccatg	aaggatttat	gggcaaagac	1800
tgcaaggagc	aaagatgtcc	cagtgtactgt	catggccagg	gccgctgcgt	ggacggccag	1860
tgcatctgcc	acgagggcct	cacaggcctg	gactgtggcc	agcactcctg	ccccagtgtg	1920
tgcaacaact	taggacaatg	cgctcggggc	cgctgcatct	gcaacgaggg	ctacagcgg	1980
gaagactgct	cagaggtgtc	tcctcccaaa	gacctcgttg	tgacagaagt	gacggaagag	2040
acggtcaacc	ggcctggga	caatgagatg	cggtgcacag	agtaccttgt	cgtgtacacg	2100
cccaccacg	aggggtgtct	ggaaatgcag	ttccgtgtgc	ctggggacca	gacgtccacc	2160
atcatccagg	agctggaacc	tgggtgtggag	tactttatcc	gtgtatttgc	catcctggag	2220
aacaagaaga	gcattcctgt	cagcgccagg	gtggccacgt	acttacctgc	acctgaaggc	2280
ctgaaattca	agtcacatcaa	ggagacatct	gtggaagtgg	agtgggatcc	tctagacatt	2340
gcttttgaaa	cctggggagat	catcttccgg	aatatgaata	aagaagatga	gggagagatc	2400
accaaaagcc	tgaggaggcc	agagacctct	taccggcaaa	ctgggtctagc	tcctgggcaa	2460
gagtatgaga	tatctctgca	catagtga	aacaataacc	ggggccctgg	cctgaagagg	2520
gtgaccacca	cacgcttgg	tgcccccagc	cagatcgagg	tgaaagatgt	cacagacacc	2580
actgccttga	tcacctggtt	caagcccctg	gctgagatcg	atggcattga	gctgacctac	2640
ggcatcaaa	acgtgccagg	agaccgtacc	accatcgatc	tcacagagga	cgagaaccag	2700
tactccatcg	ggaacctgaa	gcctgacact	gagtagcagg	tgtccctcat	ctcccgacga	2760
ggtgacatgt	caagcaaccc	agccaaagag	accttcacaa	caggcctcga	tgctcccagg	2820
aatcttcgac	gtgtttccca	gacagataac	agcctacccc	tggaatggag	gaatggcaag	2880
gcagctattg	acagttacag	aattaagtat	gccccatct	ctggagggg	ccacgctgag	2940
gttgatgttc	caaagagcca	acaagccaca	acaaaaacca	cactcacagg	tctgaggccg	3000
ggaactgaat	atgggattgg	agtttctgct	gtgaagggaag	acaaggagag	caatccagcg	3060
accatcaacg	cagccacaga	gttggacacg	cccaaggacc	ttcagggttc	tgaaactgca	3120
gagaccagcc	tgacctgct	ctggaagaca	ccgttggcca	aatttgaccg	ctaccgcctc	3180
aattacagtc	tcctccagg	ccagtgggtg	ggagtgcagc	ttccaagaaa	caccacttcc	3240
tatgtcctga	gaggcctgga	accaggacag	gagtagcaatg	tcctcctgac	agccgagaaa	3300
ggcagacaca	agagcaagcc	cgcacgtgtg	aaggcatcca	ctgaacgagc	ccctgagctg	3360
gaaaacctca	ccgtgactga	ggttggctgg	gatggcctca	gactcaactg	gaccgcagct	3420
gaccaggcct	atgagcactt	tatcattcag	gtgcaggagg	ccaacaaggt	ggaggcagct	3480
cggaacctca	ccgtgcctgg	cagccttcgg	gctgtggaca	taccgggcct	caaggctgct	3540
acgccttata	cagtctccat	ctatgggtcg	ttccagggtc	atagaacacc	agtgtctctc	3600
gctgaggcct	ccacagggga	aactcccaat	ttgggagagg	tcgtggtggc	cgagggtggc	3660
tgggatgccc	tcaaaactcaa	ctggactgct	ccagaagggg	cctatgagta	ctttttcatt	3720
caggtgcagg	aggctgacac	agtagaggca	gcccagaacc	tcaccgtccc	aggaggactg	3780
aggtccacag	acctgcctgg	gctcaaagca	gccactcatt	ataccatcac	catccgcggg	3840
gtcactcagg	acttcagcac	aacccctctc	tctgttgaag	tcttgacaga	ggatctccca	3900
cagctgggag	atttagccgt	gtctgagggt	ggctgggatg	gcctcagact	caactggacc	3960
gcagctgaca	atgcctatga	gcactttgtc	atccagggtg	aggaggtcaa	caaagtggag	4020
gcagcccaga	acctcacggt	gcctggcagc	ctcagggtcg	tggacatccc	gggcctcgag	4080
gctgccacgc	cttatagagt	ctccatctat	ggggtgatcc	ggggctatag	aacaccagta	4140
ctctctgctg	aggcctccac	agccaaagaa	cctgaaattg	gaaacttaaa	tgtttctgac	4200
ataactcccg	agagcttcaa	tctctcctgg	atggctaccg	atgggatctt	cgagaccttt	4260
accattgaaa	ttattgattc	caataggttg	ctggagactg	tggaatataa	tatctctggt	4320
gctgaacgaa	ctgcccatat	ctcagggtca	ccccctagta	ctgattttat	tgtctacctc	4380
tctggacttg	ctcccagcat	ccggaccaaa	acctcagtg	ccacagccac	gacagaggcc	4440
ctgccccttc	tggaaaacct	aaccatttcc	gacattaatc	cctacgggtt	cacagtttcc	4500
tggatggcat	cggagaatgc	ctttgacagc	tttctagtaa	cggtggtgga	ttctgggaag	4560
ctgctggacc	cccaggaatt	cacactttca	ggaaccacga	ggaagctgga	gcttagaggc	4620

ctcataactg	gcattggcta	tgaggttatg	gtctctggct	tcaccaag	gcatcaaacc	4680
aagcccttga	gggctgagat	tggttacagaa	gccgaaccgg	aagttgacaa	ccttctgggt	4740
tcagatgcc	ccccagacgg	tttccgtctg	tcctggacag	ctgatgaagg	ggtcttcgac	4800
aattttgttc	tcaaaatcag	agataccaaa	aagcagctctg	agccactgga	aataacccta	4860
cttgcccccg	aacgtaccag	ggacataaca	ggtctcagag	aggctactga	atacgaaatt	4920
gaactctatg	gaataagcaa	aggaaggcga	tcacagacag	tcagtgtctat	agcaacaaca	4980
gccatgggct	ccccaaagga	agtcattttc	tcagacatca	ctgaaaattc	ggctactgtc	5040
agctggaggg	caccacacgc	ccaagtggag	agcttccgga	ttacctatgt	gcccattaca	5100
ggaggtacac	cctccatggg	aactgtggac	ggaaccaaga	ctcagaccag	gctgggtgaaa	5160
ctcatacctg	gcgtggagta	ccttgtcagc	atcatcgcca	tgaagggtct	tgaggaaagt	5220
gaacctgtct	cagggtcatt	caccacagct	ctggatggcc	catctggcct	ggtgacagcc	5280
aacatcactg	actcagaagc	cttggccagg	tggcagccag	ccattgccac	tgtggacagt	5340
tatgtcatct	cctacacagg	cgagaaagtg	ccagaaatta	cacgcacggg	gtccgggaac	5400
acagtggagt	atgctctgac	cgacctcgag	cctgccacgg	aatacacact	gagaatcttt	5460
gcagagaaaag	ggccccagaa	gagctcaacc	atcactgcca	agttcacac	agacctcgat	5520
tctccaagag	acttgactgc	tactgaggtt	cagtcggaaa	ctgccctcct	tacctggcga	5580
cccccccg	catcagtcac	cggttacctg	ctggtctatg	aatcagtggg	tggcacagtc	5640
aaggaagtca	ttgtgggtcc	agataccacc	tcctacagcc	tggcagacct	gagcccatcc	5700
accactaca	cagccaagat	ccaggcactc	aatgggcccc	tgaggagcaa	tatgatccag	5760
accatcttca	ccacaattgg	actcctgtac	cccttcccc	aggactgctc	ccaagcaatg	5820
ctgaatggag	acacgacctc	tggcctctac	accatcttct	tgaatgggtg	taaggctgag	5880
gcgctggaag	tcttctgtga	catgacctct	gatgggggtg	gatggattgt	gttctcgaga	5940
cgcaaaaacg	gacgcgagaa	cttctaccaa	aactggaagg	catatgctgc	tggatttggg	6000
gaccgcagag	aagaattctg	gcttgggctg	gacaacctga	acaaaatcac	agcccagggg	6060
cagtacgagc	tccgggtgga	cctgcgggac	catggggaga	cagcctttgc	tgtctatgac	6120
aagttcagcg	tgggagatgc	caagactcgc	tacaagctga	aggtggaggg	gtacagtggg	6180
acagcaggtg	actccatggc	ctaccacaat	ggcagatcct	tctccacctt	tgacaaggac	6240
acagattcag	ccatcaccaa	ctgtgctctg	tcctacaaaag	gggctttctg	gtacaggaac	6300
tgtcaccgtg	tcaacctgat	ggggagatat	ggggacaata	accacagtca	gggcgttaac	6360
tggttccact	ggaaggggcca	cgaacactca	atccagtttg	ctgagatgaa	gctgagacca	6420
agcaacttca	gaaatcttga	aggcaggcgc	aaacgggcat	aaattccagg	gaccactggg	6480
tgagagagga	ataaggccca	gagcgaggaa	aggattttac	caaagcatca	atacaaccag	6540
cccaaccatc	ggtccacacc	tgggcatttg	gtgagagtca	aagctgacca	tggatccctg	6600
gggccaacgg	caacagcatg	ggcctcacct	cct			6633

<210> 45

<211> 1476

<212> DNA

<213> Homo sapiens

<400> 45

gcagcggagg	caaagttatt	tccccctcca	ggcagcggga	ttccgactgg	caagatgggtg	60
cccagctctc	cgcgcgcgct	cttccttctg	ctcctgatcc	tcgcctgccc	cgagccgcgg	120
gcttcccaga	actgtctcag	caaacagcag	ctcctctcgg	ccatccgcca	gctgcagcag	180
ctgctgaagg	gccaggagac	acgcttcgcc	gagggcatcc	gccacatgaa	gagccggctg	240
gccgcgctgc	agaactctgt	gggcagggtg	ggcccagatg	cccttccagt	ttcctgcccg	300
gctctgaaca	ccccgcaga	cggcagaaag	tttggaaagca	agtacttagt	ggatcacgaa	360
gtccatttta	cctgcaaccc	tgggttccgg	ctggtcgggc	ccagcagcgt	ggtgtgtctt	420
cccaatggca	cctggacagg	ggagcagccc	cactgtagag	gtatcagtga	atgctccagc	480
cagccttgtc	aaaatggtgg	tacatgtgta	gaaggagtca	accagtacag	atgcatttgt	540
cctccaggaa	ggactgggaa	ccgctgtcag	catcaggccc	agactgccgc	ccccgagggc	600
agcgtggccg	gcgactccgc	cttcagccgc	gcgcgcgct	gtgcgcaggt	ggagcgggct	660
cagcactgca	gctgcgaggc	cggattccac	ctgagcggcg	ccgcggcgca	cagcgtctgc	720
caggatgtgg	atgaatgtgt	gggcctgcag	ccggtgtgcc	cccaggggac	cacatgcac	780
aacaccgggtg	gaagcttcca	gtgtgtcagc	cctgagtgcc	ccgagggcag	cggcaatgtg	840
agctacgtga	agacgtctcc	attccagtgt	gagcggaacc	cctgccccat	ggacagcagg	900
ccctgcgcgc	atctgccc	gaccatctcc	ttccattacc	tctctctgcc	ttccaacctg	960

aagacgcccc	tcacgctctt	cgcgatggcc	acagcctctg	cccccgccg	agctgggccc	1020
aacagcctgc	ggtttgggat	cgtgggtggg	aacagccgcg	gccactttgt	gatgcagcgt	1080
tcagaccggc	agactgggga	tctgatcctt	gtgcagaacc	tggagggggc	tcagacgctg	1140
gaggtggacg	tcgacatgtc	ggaatacctg	gaccgctcct	tccaggccaa	ccacgtgtcc	1200
aaggtcacca	tctttgtatc	cccctatgac	ttctgagggt	acacaggggc	actgggggtg	1260
ggagagctga	cctcattttc	cttccccgaa	ggctcagctt	cgggcaccga	ctgctgtggag	1320
cctcccgcc	gttcccgccc	actcaccagt	gcacccaggc	ttctagggca	gcgttgacag	1380
gcgccccatg	gaatagcacg	gaagagcagc	cacaaaactc	aactgctgcc	atcactcttt	1440
ttttttttct	gctttgaggc	ccttccctta	gattat			1476

<210> 46

<211> 839

<212> DNA

<213> Homo sapiens

<400> 46

ctggctttct	tgtcttccct	catctcattg	tttcagcgga	ggccaaatct	gaagtccttt	60
ccagggagtg	gctctgttca	tcttattcgc	cagccaaagt	aggaacagcg	taagaggaga	120
gagacacatt	cagcagccaa	aggactcgg	ggaaagagca	gaacaccata	gacaatatgt	180
cgctcttggg	acccaagggt	ctgctgtttc	ttgctgcatt	catcatcacc	tctgactgga	240
tacccctggg	ggtcaatagt	caacgaggag	acgatgtgac	tcaagcgact	ccagaaacat	300
tcacagaaga	tcctaattctg	gtgaatgatc	ccgctacaga	tgaacagag	tgctgggatg	360
agaaatttac	ctgcacaagg	ctctactctg	tgcacggcc	ggttaaacia	tgcatctatc	420
agttatgctt	caccagttta	cgacgtatgt	acatcgtcaa	caaggagatc	tgctctcgtc	480
ttgtctgtaa	ggaacacgaa	gctatgaaag	atgagctttg	ccgtcagatg	gctgggtctgc	540
cccctaggag	actccgtcgc	tccaattact	tccgacttcc	tccctgtgaa	aatgtggatt	600
tgcagagacc	caatggctctg	tgatcattga	aaaagaggaa	agaagaaaaa	atgtatgggt	660
gagaggaagg	aggatctcct	tcttctccaa	ccattgacag	ctaaccctta	gacagtattt	720
cttaaaccaa	tctttttgca	atgtccagct	tttacccta	ctctctactt	tttcaccaa	780
actgataaca	tttatctcat	tttctagcac	ttaaaataca	aagtctatat	tattttggc	839

<210> 47

<211> 1488

<212> DNA

<213> Homo sapiens

<400> 47

tgagccgcct	gatttattcc	ggtcccagag	gagaaggcgc	cagaaccccc	cggggtctga	60
gcagcccagc	gtgcccattc	cagcgcccgc	gtccccgcag	catgccgcgc	ccccgcctgc	120
tggccgcgct	gtgcggcgcg	ctgctctgcg	ccccagcct	cctcgtcgcc	ctggaatgtg	180
tcgagccact	gggcctggag	aatgggaaca	ttgccaaactc	acagatcgcc	gcctcgtctg	240
tgcgtgtgac	cttcttgggt	ttgcagcatt	gggtcccggg	gctggccccgc	ctgaaccgcg	300
caggcatgg	caatgcctgg	acaccagca	gcaatgacga	taacccttgg	atccaggtga	360
acctgctgcg	gaggatgtgg	gtaacagggtg	tggtgacgca	gggtgccagc	cgcttgcca	420
gtcatgagta	cctgaaggcc	ttcaagggtg	cctacagcct	taatggacac	gaattcgatt	480
tcattccatga	tgtaataaaa	aaacacaagg	agtttgtggg	taactggaac	aaaaacgcgg	540
tgcattgtcaa	cctgtttgag	acccctgtgg	aggctcagta	cgtgagattg	taccacagca	600
gctgccacac	ggcctgcact	ctgcgctttg	agctactggg	ctgtgagctg	aacggatgcg	660
ccaatcccct	gggcctgaag	aataacagca	tccctgacaa	gcagatcacg	gcctccagca	720
gctacaagac	ctggggcttg	catctcttca	gctggaaccc	ctcctatgca	cggctggaca	780
agcagggcaa	cttcaacgcc	tgggttgccg	ggagctacgg	taacgatcag	tggctgcagg	840
tggacctggg	ctcctcgaag	gaggtgacag	gcacatcac	ccagggggcc	cgtaactttg	900
gctctgtcca	gtttgtggca	tcctacaagg	ttgcctacag	taatgacagt	gcgaactgga	960
ctgagtagca	ggacccaggg	actggcagca	gtaagatctt	ccctggcaac	tgggacaacc	1020
actcccacaa	gaagaacttg	tttgagacgc	ccatcctggc	tcgctatgtg	cgcacacctg	1080
ctgtagcctg	gcacaaccgc	atcgccctgc	gcctggagct	gctgggctgt	tagtggccac	1140

ctgccacccc	caggtcttcc	tgctttccat	gggcccgcgtg	cctcttggct	tctcagcccc	1200
tttaaatcac	catagggctg	gggactgggg	aaggggaggg	tggtcagagg	cagcaccacc	1260
acacagtcac	ccctccctcc	ctctttccca	ccctccacct	ctcacgggcc	ctgccccagc	1320
ccctaagccc	cgccccctaa	ccccagtc	tcactgtcct	gttttcttag	gcactgaggg	1380
atctgagtag	gtctggcatg	gacaggaaag	ggcaaagtag	ggcgtgtggt	ttccctgcct	1440
tgtccagacc	gctatcccag	tgcgtgtgtc	tctgtctctc	tagccac		1488

<210> 48

<211> 2320

<212> DNA

<213> Homo sapiens

<400> 48

ggtgcgaggag	ggtcgaggag	gcgcttggc	accgcactct	ggcatcccgc	acgtccgaca	60
tcagccctgc	cctccttctc	aggggcttcc	attcattttg	tgccaaaagg	gaactgccgc	120
ccgtccgtct	gcccgcaggc	attgcccag	ccagccgagc	cgccagagcc	gcgggcccgc	180
ggggtgtcgc	gggcccac	ccaggatgct	cccctgcgcc	tcttgctac	ccgggtctct	240
actgctctgg	gcgctgctac	tggtgctctt	gggatcagct	tctcctcagg	attctgaaga	300
gcccgcagac	tacacggaat	gcacagatgg	ctatgagtgg	gacccagaca	gccagcactg	360
ccgggggtgtg	tgtgcctggg	ggaccaaaca	cccccaggaa	ccgggaaagg	gattgatagc	420
tgctttccaa	gagacagccc	cacctccaag	aactgcctg	ggagcccagc	agcccgttct	480
atgccagct	ctgctacaca	gaggccagct	ctggctctct	ggaggccagt	tgagctaggg	540
gtggcctcat	cctctcccag	aaacccagga	aaccttgtcc	ctacccctca	gaggagctgg	600
atcctgtacg	ccttctctgg	accactctcc	tgtcccagct	ctttgtctca	tcacaacctg	660
ggagggtagc	gtccccaggg	atgtcaacga	gtgtctgacc	atccctgagg	cctgcaaggg	720
ggaaatgaag	tgcatacaac	actacggggg	ctacttgtgc	ctgccccgct	ccgctgccgt	780
catcaacgac	ctacatggcg	agggaccccc	gccaccagtg	cctcccgtc	aacaccccaa	840
cccctgcccc	ccaggctatg	agcccgaaga	tcaggacagc	tgtgtggatg	tggacgagtg	900
tgcccaggcc	ctgcacgact	gtcgccccag	ccaggactgc	cataacttgc	ctggctccta	960
tcagtgcacc	tgcctgatg	gttaccgcaa	gatcgggccc	gagtgtgtgg	acatagacga	1020
gtgccgctac	cgctactgcc	agcaccgctg	cgtgaacctg	cctggctcct	tccgctgcca	1080
gtgcgagccg	ggcttccagc	tggggcctaa	caaccgctcc	tgtgttgatg	tgaacgagtg	1140
tgacatgggg	gccccatg	agcagcgctg	cttcaactcc	tatgggacct	tctgtgtctg	1200
ctgccaccag	ggctatgagc	tgcatcgga	tggtctctcc	tgacgtgata	ttgatgagtg	1260
tagctactcc	agctacctct	gtcagtaccg	ctgcgtcaac	gagccaggcc	gtttctcctg	1320
ccactgcccc	cagggttacc	agctgctggc	cacacgcctc	tgccaagaca	ttgatgagtg	1380
tgagtctggg	gcgcaccagt	gctccgaggc	ccaaacctgt	gtcaacttcc	atgggggcta	1440
ccgctgcgtg	gacaccaacc	gctgcgtgga	gcccacatc	caggtctctg	agaaccgctg	1500
tctctgcccc	gcctccaacc	ctctatgtcg	agagcagcct	tcatccattg	tgcaccgcta	1560
catgaccatc	acctcgagc	ggagcgtgcc	cgtgacgtg	ttccagatcc	aggcgacctc	1620
cgtctacccc	gggtgctaca	atgcctttca	gatccgtgct	ggaaaactcg	agggggactt	1680
ttacattagg	caaatcaaca	acgtcagcgc	catgctggtc	ctcgcccggc	cggtgacggg	1740
cccccgagg	tacgtgctgg	acctggagat	ggtcaccatg	aattccctca	tgagctaccg	1800
ggccagctct	gtactgaggc	tcaccgtctt	tgtagggggc	tacaccttct	gaggagcagg	1860
agggagccac	cctccctgca	gctaccctag	ctgaggagcc	tggtgtgagg	ggcagaatga	1920
gaaaggcaat	aaaggagaa	agaaagtctt	gggtggctgag	gtggggcggg	cacactgcag	1980
gaagcctcag	gctggggcag	gggtggcactt	ggggggggcag	gccaagtcca	cctaaatggg	2040
gggtctctata	tggtcaggcc	cagggggcccc	cattgacagg	agctgggagc	tctgcaccac	2100
gagcttcagt	caccccagaga	ggagaggagg	taacgaggag	ggcggactcc	aggccccggc	2160
ccagagattt	ggacttggt	ggcttgacag	ggtcctaaga	aactccactc	tggacagcgc	2220
caggaggccc	tgggttccat	tcctaactct	gcctcaaaact	gtacatttgg	ataagcccta	2280
gtagttccct	gggcctgttt	ttctataaaa	cagggcaact			2320

<210> 49
 <211> 2266
 <212> DNA
 <213> Homo sapiens

<400> 49
 tctgcacagc aagaactgaa acgaatgggg attgaactgc tttgcctggt ctttctatatt 60
 ctaggaagga atgatcacgt acaagggtggc tgtgccctgg gaggtgcaga aacctgtgaa 120
 gactgcctgc ttattggacc tcagtgtgcc tgggtgtgctc aggagaattt tactcatcca 180
 tctggagttg gcgaaagggtg tgatacccca gaaaccttt tagctaaagg atgtcaatta 240
 aacttcatcg aaaacctgt ctcccaagta gaaatactta aaaataagcc tctcagtgtgta 300
 ggcagacaga aaaatagttc tgacattggt cagattgcgc ctcaaagctt gatccttaag 360
 ttgagaccag gtggtgcgca gactctgcag gtgcatgtcc gccagactga ggactaccgc 420
 gtggatttgt attacctcat ggacctctcc gcctccatgg atgacgacct caacacaata 480
 aaggagctgg gctcccggt ttccaaagag atgtctaaat taaccagcaa ctttagactg 540
 ggcttcggat cttttgtgga aaaacctgta tcccttttg tgaaaacaac accagaagaa 600
 attgcccaacc cttgcagtag tattccatac ttctgtttac ctacatttgg attcaagcac 660
 attttgccat tgacaaatga tgctgaaaga ttcaatgaaa ttgtgaagaa tcagaaaatt 720
 tctgctaata ttgacacacc cgaagggtgga tttgatgcaa ttatgcaagc tgctgtgtgt 780
 aagggaaaaa ttggctggcg gaatgactcc ctccacctcc tgggtcttgt gatgatgct 840
 gattctcatt ttggaatgga cagcaaacta gcaggcatcg tcatctctaa tgacgggctc 900
 tgtcacttgg acagcaagaa tgaatactcc atgtcaactg tcttgggaata tccaacaatt 960
 ggacaactca ttgataaact ggtacaaaac aacgtgttat tgatcttcgc tgtaacccea 1020
 gaacaagttc atttatatga gaattacgca aaacttattc ctggagctac agtaggtcta 1080
 cttcagaagg actccggaac cattctccag ctgatcatct cagcttatga agatctgcgg 1140
 tctgaggtgg aactggaagt attaggagac actgaaggac tcaacttgct atttacagcc 1200
 atctgtaaca acggtaccct cttccaacac caaaagaaat gctctcacat gaaagtggga 1260
 gacacagctt ctttcagcgt gactgtgaat atcccacact gcgagagaag aagcaggcac 1320
 attatcataa agcctgtggg gctgggggat gccctggaat tacttgtcag ccagaaatgc 1380
 aactgcgact gtccagaaaga agtggaagtg aacagctcca aatgtcacca cgggaacggc 1440
 tctttccagt gtgggggtgtg tgccctgccac cctggccaca tggggcctcg ctgtaacggc 1500
 gactgtgact gtggtgaatg tgtgtgcagg agcggctgga ctggcgagta ctgcaactgc 1560
 accaccagca cggactcctg cgtctctgaa gatggagtgc tctgcagcgg gcgcggggac 1620
 tgtgtttgtg gcaagtgtgt ttgcacaaac cctggagcct caggaccaac ctgtgaacga 1680
 tgtcctacct gtggtgacct ctgtaactct aaacggagct gcattgagtg ccacctgtca 1740
 gcagctggcc aagcccagaga agaattgtgtg gacaagtgc aactagctgg tgcgaccatc 1800
 agtgaagaag aagatttctc aaaggatggt tctgtttcct gctctctgca aggagaaaat 1860
 gaatgtctta ttacattcct aataactaca gataacgagg ggaaaaccat cattcacagc 1920
 atcaatgaaa aagattgtcc gaagcctcca aacattccca tgatcatgtt aggggtttcc 1980
 ctggctattc ttctcatcgg ggttgtccta ctgtgcactt ggaagctact ggtgtcattt 2040
 catgatcgta aagaagttgc caaatttgaa gcagaacgat caaaagccaa gtggcaaacg 2100
 ggaaccaatc cactctacag aggatccaca agtactttta aaaatgtaac ttataaacac 2160
 agggaaaaac aaaaggtaga cttttccaca gattgctaga ctactttatg caggcgattc 2220
 cagcacactg cgccgtacta gcgatcggag ctcgaccact gtatcc 2266

<210> 50
 <211> 1397
 <212> DNA
 <213> Homo sapiens

<400> 50
 tcggagggcg cctggtgcag catgggcggc ccgcgggcct gggcgctgct ctgcctcggg 60
 ctccctgctc cgggagggcg cgctgcgtgg agcatcgggg cagctccggt ctccggacgc 120
 aggaactggt gctcctatgt ggtgaccgcg accatctcat gccatgtgca gaatggcacc 180
 taccttcagc gactgctgca gaactgcccc tggcccatga gctgtccggg gagcagctac 240
 agaactgtgg tgagaccac atacaagggt atgtacaaga tagtgaccgc ccgtgagtgg 300
 aggtgctgcc ctgggcactc aggagtgagc tgcgaggaag ttgcaggttc ctctgcctcc 360

ttggagccca	tgtggtcggg	cagtaccatg	cggcggatgg	cgcttcagcc	cacagccttc	420
tcaggttgtc	tcaactgcag	caaagtgtca	gagctgacag	agcggttgaa	ggtgctggag	480
gccaaagtga	ccatgctgac	tgtcatagag	cagccagtac	ctccaacacc	agctaccctt	540
gaggaccttg	ccccgctctg	gggtccccct	cctgcccagg	gcagccccgg	agatggaggc	600
ctccaggacc	aagtgcgtgc	ttgggggctt	cccggggcca	ccggccccaa	gggagatgcc	660
ggcagtcggg	gccaatggg	gatgagaggc	ccaccaggtc	cacaggggcc	cccaggggagc	720
cctggccggg	ctggagctgt	gggcacccct	ggagagaggg	gacctcctgg	gccaccaggg	780
cctcctggcc	ccccctgggc	cccagccccct	gttggggccac	cccatgcccg	gatctcccag	840
catggagacc	cattgctgtc	caacaccttc	actgagacca	acaaccactg	gccccaggga	900
ccactgggc	ctccaggccc	tccaggggcc	atgggtcccc	ctgggcctcc	tggccccaca	960
ggtgtccctg	ggagtccctg	tcacatagga	cccccaggcc	ccactggacc	caaagggaatc	1020
tctggccacc	caggagagaa	gggcgagaga	ggactgcgtg	gggagcctgg	cccccaaggc	1080
tctgctgggc	agcgggggga	acctggccct	aaggggagacc	ctggtgagaa	gagccactgg	1140
gctcctagct	tacagagctt	cctgcagcag	caggctcagc	tggagctcct	ggccagacgg	1200
gtcacccctc	tggaagccat	catctggcca	gaaccagagc	tggggtctgg	ggcggggcct	1260
gccggcacag	gcacccccag	cctccttcgg	ggcaagaggg	gcggacatgc	aaccaactac	1320
cggatcgtgg	ccccaggag	ccgggacgag	agaggctgag	ggtggtggcg	gcccttgagg	1380
cagaccaggc	caggcta					1397

<210> 51
 <211> 906
 <212> DNA
 <213> Homo sapiens

<400> 51						
tgtcccatct	gactccccat	gaggctcctg	gctttcctga	gtctgctggc	cttggtgctg	60
caggagacag	ggacagcttc	tctcccaagg	aaggagagga	agaggagaga	ggagcagatg	120
cccagggaag	gcgattccctt	tgaagtctctg	cctctgcgga	atgatgtcct	gaaccagac	180
aactatggtg	aagtcattga	cctgagcaac	tatgaggagc	tcacagatta	tggggaccaaa	240
ctccccgagg	ttaaggtgac	tagcctcgct	cctgcaacca	gcatacgtcc	cgccaagagc	300
actacggctc	cagggaacacc	ctcgtcaaac	cccacgatga	ccagacctac	tacagcaggg	360
ctgctactga	gttcccagcc	caaccatgca	aagttgaaga	ggattgacct	ctccaacaac	420
ctcatttccct	ccatcgataa	tgatgccttc	cgctgctac	atgccctcca	ggacctcatc	480
ctcccagaga	accagttgga	agctctgccc	gtgctgcccc	gtggcattga	gttcttggat	540
gtccgcctaa	atcggctcca	gagctcgggg	atacagcctg	cagccttcag	ggcaatggag	600
aagctgcagt	tcctttacct	gtcagacaac	ctgctggatt	ctatcccggg	gcctttgccc	660
ctgagcctgc	gctctgtaca	cctgcagaat	aacctgatag	agacctatga	gagagacgtc	720
ttctgtgacc	ccgaggagca	caaacacacc	cgcaggcagc	tggaagacat	ccgcctggat	780
ggcaacccca	tcaacctcag	cctcttcccc	agcgctact	tctgcctgcc	tcggctcccc	840
atcggccgct	tcacgtagct	cggagccctt	ccactcctcc	caggatcatct	cttgaccag	900
cgggca						906

<210> 52
 <211> 1326
 <212> DNA
 <213> Homo sapiens

<400> 52						
tgctactcct	gcgcgccaca	atgagctccc	gcategccag	ggcgctcgcc	ttagtcgtca	60
cccttctcca	cttgaccagg	ctggcgctct	ccacctgccc	cgctgcctgc	cactgcccc	120
tggaggcgcc	caagtgcgcg	ccgggagtcg	ggctggtccg	ggacggctgc	ggctgctgta	180
aggtctgcgc	caagcagctc	aacgaggact	gcagcaaaac	gcagccctgc	gaccacacca	240
aggggctgga	atgcaacttc	ggcgccagct	ccaccgctct	gaaggggatc	tgcaagctc	300
agtcagaggg	cagaccctgt	gaatataact	ccagaatcta	ccaaaacggg	gaaagtttcc	360
agcccaactg	taaacatcag	tgcacatgta	ttgatggcgc	cgtgggctgc	attcctctgt	420
gtccccaaga	actatctctc	cccaacttgg	gctgtcccaa	ccctcggctg	gtcaaaagtta	480

```

ccgggacagtg ctgcgaggag tgggtctgtg acgaggatag tatcaaggac cccatggagg 540
accaggacgg cctccttggc aaggagctgg gattcgatgc ctccgagggtg gagttgacga 600
gaaacaatga attgattgca gttggaaaag gcagctcact gaagcgggtc cctggtaagt 660
ggagactgag cacttcagac actgtactga gatgcatttc tggctctaat cttttagtaa 720
atgagtgtt gagcctgttt gtgtcgggtat gcctctgaga agtcttccct cttatatgtc 780
tctagttttt ggaatggagc ctgcgcatcct atacaaccct ttacaaggcc agaaatgtat 840
tgttcaaaaca acttcattggt cccagtgtctc aaagacctgt ggaactggta tctccacacg 900
agttaccaat gacaaccctg agtgccgcct tgtgaaagaa acccggtatt gtgaggtgcg 960
gccttgtgga cagccagtgt acagcagcct gaaaaagggc aagaaatgca gcaagaccaa 1020
gaaatcccc gaaccagtca ggtttactta cgctggatgt ttgagtgtga agaaataccg 1080
gccccagtac tgcggttcct gcgtggacgg ccgatgctgc acgccccagc tgaccaggac 1140
tgtgaagatg cggttccgct gcgaagatgg ggagacattt tccaagaacg tcatgatgat 1200
ccagtcttgc aaatgcaact acaactgccc gcattgccaat gaagcagcgt ttcccttcta 1260
caggctgttc aatgacattc acaaatttag ggactaaatg ctacctgggt ttccagggca 1320
caccta
1326

```

```

<210> 53
<211> 1090
<212> DNA
<213> Homo sapiens

```

```

<400> 53
tacagagcca ggaccctgga aggaagcagg atggcagccg gaacagcagt tggagcctgg 60
gtgctgggtc tcagtctgtg gggggcagta gtaggtgtc aaaacatcac agcccggatt 120
ggcgagccac tgggtgctgaa gtgtaagggg gcccccaaga aaccacccca gcggctggaa 180
tggaactga acacaggccg gacagaagct tggaaaggctc tgtctcccca gggaggaggc 240
ccctgggaca gtgtggctcg tgccttccc aacggctccc tcttcttccc ggctgtcggg 300
atccaggatg aggggatttt ccggtgccag gcaatgaaca ggaatgaaa ggagaccaag 360
tccaactacc gagtcctgt ctaccagatt cctgggaagc cagaaattgt agattctgcc 420
tctgaactca cggctgggtg tcccaataag gtggggacat gtgtgtcaga gggaagctac 480
cctgcagggg ctcttagctg gcacttggat ggggaagccc tgggtgcctaa tgagaaggga 540
gtatctgtga aggaacagac caggagacac cctgagacag ggctcttcac actgcagtcg 600
gagctaattg tgacccagc ccggggagga gatccccgtc ccaccttctc ctgtagcttc 660
agcccaggcc tccccgaca ccgggccttg cgcacagccc ccatccagcc ccgtgtctgg 720
gagcctgtgc ctctggagga ggtccaattg gtggtggagc cagaagggtg agcagttagt 780
cctggtggaa ccgtaaccct gacctgtgaa gtccctgccc agccctctcc tcaaaccac 840
tggatgaagg ataaccaggc gaggaggggc caactgcagg tgaggggttt gataaagtca 900
gggaagcaga agatagcccc caacacatgt gactgggggg atggtcaaca agaaaggaa 960
ggaaggcccc agaaaaccag gaggaagagg aggagcgtgc agaactgaat cagtcggagg 1020
aacctgaggg aggcgagagt agtactggag ggccttgagg ggcccacaga cagatcccat 1080
ccatcagcta
1090

```

```

<210> 54
<211> 776
<212> DNA
<213> Homo sapiens

```

```

<400> 54
tagctgtcct ctctgacacc accccggcct gcctctttgt tgccatgaga gctgcctacc 60
tcttctgtct attcctgcct gcaggcttgc tggctcaggg ccagtatgac ctggacccgc 120
tgccgcggtt ccctgaccac gtccagtaca cccactatag cgaccagatc gacaaccag 180
actactatga ttatcaaggt aacgggctag gggtaggata ggacggggccg gcagctgggg 240
tggggagacc cctgggagg ggtagaggga gcagacccc ttatcctccc ctggctgcag 300
aggtgactcc tcggccctcc gaggaacagt tccagttcca gtcccagcag caagtccaac 360
aggaagtcat ccagcccca accccagAAC caggaaatgc agagctggag cccacagagc 420
ctgggcctct tgactgccgt gaggaacagt acccgtgcac ccgcctctac tccatacaca 480

```



```

ggccttgcaa acagtgtctc aacgaggtct gcttctacag cctccgccgt gtgtacgtca 540
ttaacaagga gatctgtgtt cgtacagtgt gtgcccataa ggagctcctc cgagctgacc 600
tctgtcggga caagttctcc aaatgtggcg tgatggccag cagcggcctg tgccaatccg 660
tggcggcctc ctgtgccagg agctgtggga gctgctaggg tgggtgctggc atcctgagtc 720
ctggccctcc tgggatctgg ggccctcggg ccctgcctga cctggtgctt ttttca 776

```

```

<210> 55
<211> 549
<212> DNA
<213> Homo sapiens

```

```

<400> 55
tcttgcaactg aatacattca aagaaccatc aagaaatggg gacctggatt ttatttgcct 60
gcctcctggg agcagctttt gccatgcctg tgcttaccctc tttgaagtgg taccagagca 120
taaggccacc gcaccccccg actcacaccc tgcagcctca tcaccacatc ccagtgggtg 180
cagctcagca gcccgtgata ccccagcaac caatgatgcc cgttcctggc caacactcca 240
tgactccaat ccaacaccac cagccaaacc tccctccgcc cgcccagcag ccctaccagc 300
cccagcctgt tcagccacag cctcaccagc ccatgcagcc ccagccacct gtgcaccca 360
tgcagccctt gccgccacag ccacctctgc ctccgatgtt ccccatgcag cccctgcctc 420
ccatgcttcc tgatctgact ctggaagctt ggccatcaac agacaagacc aagcgggagg 480
aagtggatta aaagatcaga agatgagagg ggaatgaata cttcagatgc tttcaggagt 540
gacacaaga
549

```

```

<210> 56
<211> 623
<212> DNA
<213> Homo sapiens

```

```

<400> 56
tcttgcaactg aatacattca aagaaccatc aagaaatggg gacctggatt ttatttgcct 60
gcctcctggg agcagctttt gccatgcctg tgcttaccctc tttgaagtgg taccagagca 120
taaggccacc gtacccttcc tatggttacg agcccatggg tggatggctg caccacaaa 180
tcacccccgt gctgtcccaa cagcaccctc cctgcagcct catcaccaca 240
tcccagtggt gccagctcag cagcccgtag tccccagca accaatgatg ccggttcctg 300
gccaacactc catgactcca atccaacacc accagccaaa cctccctccg cccgccagc 360
agccctacca gcccagcct gttcagccac agcctacca gcccatgcag ccccagccac 420
ctgtgcaccc catgcagccc ctgccgccac agccacctct gcctccgatg ttcccatgc 480
agcccttgc tcccatgctt cctgatctga ctctggaagc ttggccatca acagacaaga 540
ccaagcggga ggaagtggat taaaagatca gaagatgaga ggggaatgaa tacttcagat 600
gctttcagga gtgacacaag aat
623

```

```

<210> 57
<211> 1751
<212> DNA
<213> Homo sapiens

```

```

<400> 57
ctgccgggtg tgccgggtgt ccagcgaacc cctttcccaa accttcgggg agaagggagg 60
tgggaggagg caaagaaact acaggcaggg agctggaagg gggggtgggg ggggcaggag 120
acaagaaatc aagacaccag gcagcaggac acacacacac tcacatacac tcacacacat 180
agagaccaac agatagacag ctacctaaag cctgaaagac tgacagcaac acagaaaaaa 240
agaaacaggc agaaagagag acaaagacag aaatagaaac agactaacac acagagtcaa 300
aaatacagag acagaaagac agggagaaag agaaacagaa aattagacac caaagacata 360
cgaacaggga ggaaggccga ctgaaagaaa gacggagaag aggagagaga agccagggcc 420
gagcgtgcca gcaggcggat ggaggggcggc ctggtggagg aggagacgta gtggcctggg 480

```

```

ctgagctggg tgggcccggga gaagcgggtg cctcagagtg ggggtggggg catgggaggg 540
gcaggcattc tgctgctgct gctgggtggg gcgggggttg tgggtggcctg gagaccccca 600
aagggaaggt gtcccctgcg ctgctcctgc tctaaagaca gcgccctgtg tgagggtctc 660
ccggacctgc ccgtcagctt ctctccgacc ctgctgtcac tctcactcgt caggacggga 720
gtcaccacgc tgaaggccgg cagcttcctg agaattccgt ctctgcacct gctgtgagt 780
gggcctggct gggccgacaa ccagctcaag ggagtgtgca tttatgcaca tgtgtgggag 840
tgtatgctca cacagatgtc aggtgggcat tgatgcacgt gtgtgggggt gtatgcacac 900
gtctgtacaa aagcatttgt gtccatgcac atactcacac ctgctgccc atgccacct 960
aggctgaggg tggaggccag ggttaaaatg tcagatgggg gctgcaattc tggaaaaatt 1020
tctttcttgc ccccttgcca gcctcttcac ctccaactcc ttctccgtga ttgaggacga 1080
tgcaatttgc ggctgtccc acctgcagta cctatctaca aagggcccg ataaccagag 1140
cctgattctg gctctccctg actcatagaa acccaggaag ggtgtacaga agtcagagac 1200
aagaaacgtt tcaaatgacc aggaaacaac tctgaattag ctctatcgag gacaatgaga 1260
ttggctccat ctctaagaat gccctcagag gacttcgctc gcttacacac ctaagcctgg 1320
ccaataacca tctggagacc ctccccagat tcctgttccg aggcctggac acccttactc 1380
acgtggacct ccgcggaac cgttccagt gtgactgccg cgtcctctgg ctctgcagt 1440
ggatgcccac cgtgaatgcc agcgtgggga ccggcgccctg tgcggggccc gcctccctga 1500
gccacatgca gctccaccac ctcgacccca agactttcaa gtgcagagcc ataggtggg 1560
ggctttcccg atgggggtgg aggcgggaga tctgggggaa aggctgccag ggccaagagg 1620
ctcgtctcac tccctgccct gccatttccc ggagtgggaa gaccctgagc aagcagcact 1680
gccttctctga gccccagttt tctcatctgt aaagtggggg taataaacag tgatatagga 1740
aaaaaaaaa a 1751

```

<210> 58

<211> 3010

<212> DNA

<213> Homo sapiens

<400> 58

```

aagcattcta ttcacagag actggacaag agttactctt gcatttggca attaaagatg 60
atgtttccat ggaaacagtt gatcctgctt tcattcattg gctgcttagg aggtgagctt 120
ctcttacaag gccctgtatt tatcaaagaa ccagcaaca gcattttccc tgttggttca 180
gaagataaaa aaataacttt gcattgtgaa gcaagaggca atccatcacc tcattacaga 240
tggcagctga atggaagtga tattgatatg agtatggaac atcgttataa gttgaatgga 300
ggaaatcttg tggttattaa tcccaacaga aattgggata caggaactta ccaatgtttt 360
gcaacaaatt cacttggaac aattgtcagc agagaagcca aacttcagtt tgcctatctt 420
gaaaatttta aaacaaaat gaggagtaca gtgtctgtgc gtgaaggcca gggagtgtg 480
ctgctctgcg gccccccacc aactctgga gaactgtcat atgcttggat cttcaatgaa 540
taccatcgt ttgttgaaga agatagtcgg agatttgtct cccaggagac agggcacctc 600
tacatatcta aggtggagcc gtctgatgtg ggaaattaca catgtgtggt gacaagtatg 660
gtgacaaatg ccgagtgtc gggctctcca actccttgg tgctacgttc tgatggtgtg 720
atgggtgaat atgaacctaa aatagaagtt cagtttccag aaactcttcc agcagctaaa 780
ggttcgactg tgaaattgga atgttttgcc cttggaaaca aagccccatt gggttcaact 840
cataaaggat gtggaaatag ccgtggagga cagtctttat tgggaatgca gggcaagcgg 900
caagcccaag ctttccctacc gatggctgaa aaatggagca gccctggtgc tagagcttct 960
gctccagatt tttcaaagaa tccaatgaag aagttgggtc aggtgcaggt gggcagcctg 1020
gtcagcttgg attgtaaacc cagagcctcc ccaagggcac tctcttctg gaagaagggg 1080
gatgtgagcg tgcaggagca tgaaagaatt tctttgttaa acgatggagg actcaaaaata 1140
gccaatgtga ctaaagctga tgctggaact tacacctgca tggcagaaaa ccagtttggg 1200
aaagcaaatt gcacaacaca tttggttgtt acggaaccaa caagaataac tttggcacca 1260
tctaactatg atgtttctgt tggtgaaagc gtcattattgc cctgccaggt acaacatgac 1320
ccgctgttag acatcatctt tacctggtat ttcaatgggg cccttgacga ttttaagaaa 1380
gatggatctc aacttgagaa agttgggtgg agttcatctg gtgatttaat gatcagaaac 1440
attcagctga acacacagtg gaaatatggt tgatgggtgc aaacgggggt ggacagtgtt 1500
tcctctgctg ctgacctcat agtaagaggt tcacctggac caccagaaaa tgtgaaggta 1560
gatgaaatta cagacacaac agcccaactc tcttggaag aaggtaaaaga caaccatagc 1620
ccagttatat cctattctat ccaggctcgg acacctttct ccgtgggttg gcaaaccgtc 1680

```

acaacagtgc	ctgaggtcat	cgatgggaag	acgcacacag	ccactgtagt	tgagttaa	1740
ccatgggtg	aatatgaatt	tgggttgta	gccagtaaca	aaattggagg	tggagaacca	1800
agtttaccct	cagaaaaagt	aagaactgaa	gaggcagttc	cagaagtgcc	tccttctgaa	1860
gtcaatggag	gaggcggaag	ccggtctgaa	cttgtgataa	cctgggatcc	agtcctgaa	1920
gaactacaga	atggtgaagg	ttttgggtat	gttgttgctt	tccgcccctc	tggggttacc	1980
acctggatcc	agacagtggg	gacatcccct	gacaccccaa	gatatgtctt	taggaatgaa	2040
agcatcgtgc	catattcacc	atatgaagtt	aaagtgggtg	tttataataa	caaaggtgaa	2100
ggaccattta	gcccagtgac	aacagtgttc	tctgcagaag	aagagcctac	agtggcccca	2160
tctcaagtct	ctgcaaatag	cctatcttcc	tcagaaattg	aggtttcatg	gaacaccatt	2220
ccttggaagt	tgagcaatgg	acatttactg	ggctatgagg	tgcggtactg	gaatggggtg	2280
gaaaggagga	atcatccagt	aagatgaaag	tggcaggaaa	tgagacatca	gccagactac	2340
ggggcctgaa	gagcaacctg	gcctattaca	cggctgtccg	ggcttacaac	agtgccggcg	2400
ctgggccttt	tagcgccaca	gttaatgtaa	ccaccaagaa	aacgcctccc	agtcagccac	2460
caggaaatgt	tgtttggaat	gccacagaca	ctaaagtgtt	acttaattgg	gagcaagtta	2520
aagccatgga	gaatgagtca	gaagtaacag	gatataaagt	tttctatagg	actagcagtc	2580
aaaataacgt	acaagtactg	aacacaaata	aaacttcagc	tgaacttggt	ctgcccata	2640
aagaggacta	cattattgaa	gtcaaggcca	caacagatgg	aggggatggg	accagtagtg	2700
aacagatcag	gattccacga	ataaccagta	tggatgcaag	aggatccact	tcagccatct	2760
cgaatgtcca	ccctatgtca	agttatatgc	ctatagtact	gttcttaatt	gtatatgtcc	2820
tgtggtgata	ttaaactcct	tttattatct	attggaaagt	tatttggtta	ccaaaaaag	2880
tgttttcatg	aaatgcagtg	attatgcatg	tttttttcaa	ctcttatttt	taactttcta	2940
cttcattata	ggtaaatatg	aatataatta	aaaaaacagt	aaatcctttt	aggggaatct	3000
gaaatgcctt						3010

<210> 59

<211> 3242

<212> DNA

<213> Homo sapiens

<400> 59

agaaagcatt	ctattcatca	gagactggac	aagagttact	cttgcatttg	gcaattaaag	60
atgatgtttc	catggaaaca	gttgatcctg	ctttcattca	ttggctgctt	aggaggtgag	120
cttctcttac	aaggccctgt	atztatcaaa	gaacccagca	acagcatttt	ccctgttggg	180
tcagaagata	aaaaaataac	tttgcatgtg	gaagcaagag	gcaatccatc	acctcattac	240
agatggcagc	tgaatggaag	tgatattgat	atgagtatgg	aacatcggtta	taagttgaat	300
ggaggaaatc	ttgtggttat	taatcccaac	agaaattggg	atacaggaa	ttaccaatgt	360
tttgcaacaa	attcacttgg	aacaattgtc	agcagagaag	ccaaacttca	gtttgcctat	420
cttgaaaatt	ttaaaaccaa	aatgaggagt	acagtgtctg	tgcgtgaagg	ccaggaggtt	480
gtgctgctct	gcgccccccc	accacactct	ggagaactgt	catatgcttg	gatcttcaat	540
gaatacccat	cgtttgttga	agaagatagt	cggagatttg	tctcccagga	gacagggcac	600
ctctacatat	ctaaggtgga	gccgtctgat	gtgggaaatt	acacatgtgt	ggtgacaagt	660
atggtgacaa	atgcccaggt	gctgggctct	ccaactcctt	tgggtgctacg	ttctgatggg	720
gtgatgggtg	aatatgaacc	taaaatagaa	gttcagtttc	cagaaactct	tccagcagct	780
aaaggttcga	ctgtgaaatt	ggaatgtttt	gcccttggaa	atcccatacc	tcagattaat	840
tggagaagaa	gtgatgggct	gccattttcc	agcaaaatta	aattaaggaa	gttcagtggt	900
gtgcttgaaa	tccccaaact	ccaacaggaa	gatgcagggt	cctatgaatg	cattgctgag	960
aattcacaag	gaaaaaatgt	tgccagaggg	cgtctcactt	actatgcaaa	gccccattgg	1020
gttcaactca	taaaggatgt	ggaaatagcc	gtggaggaca	gtctttattg	ggaatgcagg	1080
gcaagcggca	agcccaagcc	ttcctaccga	tggctgaaaa	atggagcagc	cctggtgcta	1140
gaggagagaa	cacagataga	aaatggtgcc	cttacaatat	caaaccctaag	tgtgactgat	1200
tctggcatgt	tccagtgcac	agcagaaaac	aaacatggcc	ttgtttattc	cagtgtgag	1260
ctcaaagttg	ttgcttctgc	tccagatttt	tcaaagaatc	caatgaagaa	gttggttcag	1320
gtgcaggtgg	gcagcctggg	cagcttggat	tgtaaaccca	gagcctcccc	aagggcactc	1380
tcttcctgga	agaaggggga	tgtgagcgtg	caggagcatg	aaagaatttc	tttgtaaacc	1440
gatggaggac	tcaaaatagc	caatgtgact	aaagctgatg	ctggaactta	cacctgcatg	1500
gcagaaaacc	agtttgggaa	agcaaatggc	acaacacatt	tggttgttac	ggaaccaaca	1560
agaataactt	tggcaccatc	taacatggat	gtttctgttg	gtgaaagcgt	catattgccc	1620

tgccagggtac	aacatgaccc	gctgttagac	atcatcttta	cctgggtat	caatggggcc	1680
cttgccagatt	ttaagaaaga	tggatctcac	tttgagaaag	ttgggtgggag	ttcatctggt	1740
gattttaatga	tcagaaacat	tcagctgaaa	cacagtggga	aatatgtttg	tatggtgcaa	1800
acgggggtgg	acagtgtttc	atctgctgct	gacctcatag	taagagggtc	acctggacca	1860
ccagaaaatg	tgaaggctcg	gacacctttc	tccgtgggtt	ggcaaaccgt	cacaacagt	1920
cctgagggtca	tcgatgggaa	gacgcacaca	gccactgtag	ttgagttaaa	cccatgggtg	1980
gaatatgaat	ttcgggttgt	agccagtaac	aaaattggag	gtggagaacc	aagtttacc	2040
tcagaaaaag	taagaactga	agaggcagtt	ccagaagtgc	ctccttctga	agtcaatgga	2100
ggaggcggaa	gccgggtctga	acttgtgata	acctgggatc	cagtcctctga	agaactacag	2160
aatgggtgaag	gttttgggta	tggtgtgtgt	ttccgccctc	ttgggggttac	cacctggatc	2220
cagacagtgg	tgacatcccc	tgacacccca	agatatgtct	ttaggaatga	aagcatcgtg	2280
ccatattcac	catatgaagt	taaagtgggt	gtttataata	acaaagggtga	aggaccattt	2340
agcccagtga	caacagtgtt	ctctgcagaa	gaagagccta	cagtggcccc	atctcaagtc	2400
tctgcaaata	gcctatcttc	ctcagaaatt	gagggttcat	ggaacaccat	tccttggaag	2460
ttgagcaatg	gacattttact	gggctatgag	gtgcggtact	ggaatggggg	tggaaaggag	2520
gaatcatcca	gtaagatgaa	agtggcagga	aatgagacat	cagccagact	acggggcctg	2580
aagagcaacc	tgccctatta	cacggctgtc	cgggcttaca	acagtgccgg	cgctgggcct	2640
tttagcgcca	cagttaatgt	aaccaccaag	aaaacgcctc	ccagtcagcc	accaggaaat	2700
gttggtttgga	atgccacaga	cactaaagt	ttacttaatt	gggagcaagt	taaagccatg	2760
gagaatgagt	cagaagtaac	aggatataaa	gttttctata	ggactagcag	tcaaaataac	2820
gtacaagtac	tgaacacaaa	taaaacttca	gctgaacttg	tgctgccc	taaagaggac	2880
tacattattg	aagtcaaggc	cacaacagat	ggaggggatg	ggaccagtag	tgaacagatc	2940
aggattccac	gaataaccag	tatggatgca	agaggatcca	cttcagccat	ctcgaatgtc	3000
caccctatgt	caagttatat	gcctatagta	ctgttcttaa	ttgtatatgt	cctgtggtga	3060
tattaactcc	tttttattat	ttattggaaa	gttattttgg	tacaaaaaaa	agtgtctttc	3120
tgaaatgcag	tgattatgca	tgtttttttc	aactcttatt	tttaactttc	tacttcatta	3180
taggtaaata	tgaatataat	taaaaaaaca	gtaaatcctt	ttaggggaat	ctgaaatgcc	3240
tt						3242

<210> 60

<211> 1360

<212> DNA

<213> Homo sapiens

<400> 60

gagggtatctt	tgaggaagtc	tctcttttag	gacctccctt	tgagctgatg	gagaactggg	60
ctccccacac	cctctctgtc	cccagctgag	attatgggtg	atgtgggcta	cggcccaggc	120
ctgggcctcc	tgctgctgac	ccagccccag	aggtgttagc	aagagccgtg	tgctatccac	180
cctccccgag	accacccctc	cgaccagggg	cctggagctg	gcgcgtgact	atgctggttg	240
ggctgtgtgt	ggtggccctg	gttctgagct	ggacgcacct	caccatcagc	agccggggga	300
tcaaggggaa	aaggcagagg	cggatcagtg	ccgaggggag	ccaggcctgt	gccaaaggct	360
gtgagctctg	ctctgaagtc	aacggctgcc	tcaagtgtct	acccaagctg	ttcatcctgc	420
tggagaggaa	cgacatccgc	caggtgggag	tctgcttgcc	gtcctgccc	cctggatact	480
tcgacgccc	caaccccgac	atgaacaagt	gcatacaaat	caagatcgag	cactgtgagg	540
cctgcttcag	ccataacttc	tgaccaaggt	gtaaggagg	cttgtaacct	cacaagggcc	600
gctgctatcc	agcttgctcc	gagggctcct	cagctgccc	tgccaccatg	gagtgcagta	660
gtcctgggca	gaagaggagg	aaggcgggcg	agggccggcg	ggagaatgcc	aacagggaacc	720
tggccaggaa	ggagagcaag	gagggcggtg	ctggctctcg	aagacgcaag	gggcagcaac	780
agcagcagca	gcaagggaca	gtggggccac	tcacatctgc	agggcctgcc	tagggacact	840
gtccagcctc	caggcccatg	cagaaagagt	tcagtgtctac	tctgcgtgat	tcaagctttc	900
ctgaactgga	acgtcggggg	caaagcatat	acacacactc	caatccatcc	atgcatacac	960
agacacaaga	cacacacgct	caaaccctct	tccacatata	caaccataca	tacttgacac	1020
tgtgtgttca	tgtacacacg	cagacacaga	caccacacac	acacatacac	acacacacac	1080
acacacacac	cagaagacac	ttccatccct	cgggcccagc	agtagacact	agtagacact	1140
tggtttccag	agctcccagt	ggacatgtca	gagacaacac	ttcccagcat	ctgagaccac	1200
actgcagagg	ggagccttct	ggagaagctg	ctgggatcgg	accagccact	gtggcagatg	1260
ggagccaagc	ttgaggactg	ctggtgacct	gggaagaaac	cttcttccca	tcctgttcag	1320

cactcccagc tgtgtgactt tatcgttgga gagtattgtt

1360

<210> 61

<211> 1015

<212> DNA

<213> Homo sapiens

<400> 61

tatgggtccgc	ccaatgctct	tgctcagcct	cggcctcctg	gctgggtctgc	tgccggcgct	60
ggccgcctgc	ccccagaact	gccactgcca	cagcgacctg	cagcacgtca	tctgcgacaa	120
ggtggggctg	cagaagatcc	ccaaggtgtc	agagaagacc	aaagctgtca	acctacagcg	180
caacaacttc	ccggtgctgg	ctgccaattc	gttccggggc	atgccgaacc	tcgtgtcatt	240
gcacctgcag	cactgccaga	tccgcgaggt	ggccgcctgg	gccttccgcg	gcctcaagca	300
acttatctac	ttgtacctgt	cccataacga	catccgcgtg	ctgcgcgcag	ctcaacaaca	360
acaagatccg	tgagctgcgc	gcaggcgctt	tccagggagc	caaggacctg	cgctggctct	420
acctgtcggg	aaacgcgttg	agctccctgc	agcccggggc	cctggacgac	gtggagaacc	480
tcgccaaatt	ccacgtggac	aggaaccagc	tgtccagcta	cccctcagct	gccctgagca	540
agctacgagt	ggtggaggag	ctgaagctgt	cccacaacct	cctgaaaagc	atcccgga	600
atgccttcca	gtcctttggc	agatacctgg	agaccctctg	gctggacaac	accaacctgg	660
agaagttctc	agatgggtgc	ttcctgggtg	taaccacgct	gaaacacgtc	catttgga	720
acaaccgctt	gaaccagcta	ccctccaact	tccccttoga	cagcctggag	accctcgccc	780
ttaccaataa	cccctggaag	tgtacctgcc	agctccgggg	ccttcggcgg	tggctggaag	840
ccaaggcctc	ccgcccagat	gccacctgtg	cctcacctgc	caagttcaag	ggccagcaca	900
tcctgtgacac	ggacgccttc	cgcagctgca	agttccccac	caagaggtcc	aagaaagctg	960
gccgccatta	aacaggttct	gaccagcca	ctcctgggtga	ctggcctctg	cctta	1015

<210> 62

<211> 1489

<212> DNA

<213> Homo sapiens

<400> 62

ggtcgggttc	tctactcaca	tcttttaatc	ttgaagacta	gaaaatataa	ctggatctgc	60
cacttgtttg	gaaaatatct	ctaccaagca	ataaattacc	cgctgtgctt	ttgttgtagt	120
gtagaagttt	ttgagttctc	caaactctaa	caagattttg	tccatttttc	ccatgaagct	180
acattggttg	ttattcactt	tagtggcaag	tattattgtg	ccagctgctt	ttgttttgga	240
agatgtggac	ttcgacccaa	tggtttcact	ggaagcaaat	cgtagttctt	acaatgcata	300
ctttccctca	agctttgaac	tctcagcaag	ttcccactcg	gatgatgacg	tcatacatag	360
caaagaggga	actagcgttt	caattgagtg	tcttctcaca	gccagtcact	atgaagatgt	420
ccattggcac	aattcaaaag	gacagcaact	ggatggcaga	agcagaggat	tgagataagt	480
ttggatgatg	atgaaaatgg	acaaaatcca	gagtgcttac	taatttatgt	gccactaaaa	540
taatccagaa	ccatagaatc	ttggggatga	aagagatttt	gaagattggg	cactcaagta	600
atgcttaaca	agcagtcgac	taacctcccc	tgggacacca	cctctagtca	ttggaatgca	660
tccccacact	gcagggtggg	cagtgggttg	tttctgataa	cttcctaaac	atcaccaatg	720
tagcttttga	tgaccgtggg	ctctatacct	gtttcgtcac	ctctccaatt	cgtgcctcct	780
actctgtcac	cctacgtggt	atcttcacct	cgggagacat	gagtgtctat	tacatgattg	840
tttgctgatg	tgcttttaca	atcacactca	tcttgaatgt	cacacggctg	tgcatgatga	900
gcagccatct	tcgcaagact	gagaaggcca	tcaatgagtt	ctttagaact	gaaggggctg	960
agaaacttca	gaaggccttt	gagattgcaa	aacgtatccc	catcattacc	tcagccaaaa	1020
ctctggagct	cgccaaagtc	acacaattta	agaccatgga	gtttgctcgt	tatattgaag	1080
aactggcaag	aagtgtccct	cttcacacct	ttattctaaa	ctgtcgagcc	tttggttgagg	1140
agatgtttga	ggctgtgcga	gtggatgacc	ctgatgacct	gggtgaaaga	attaaagaga	1200
gacctgcctt	gaatgctcaa	ggtggcatct	atgtcattaa	cccagagatg	ggacggagta	1260
attcaccagg	aggagattca	gatgatggct	ctctgaatga	acaaggccag	gaaatagcag	1320
ttcagggttc	tgtccacctt	cagttagaaa	ccaaaagtat	tgatacacag	tctcaaggca	1380
gcagtcattt	cagtccacct	gatgatatag	gatctgcaga	atctaactgt	aactacaaag	1440

atggggcata tgaaaactgt cagctgtaac ctacaatgct gtaaccag

1489

<210> 63

<211> 3871

<212> DNA

<213> Homo sapiens

<400> 63

ttcggctcga	gaggagcccc	cacgtagcgc	actttttattt	gtatttttttc	agatttttttt	60
ttgttttcgtg	gtggtggggg	aggtgattgg	gtggctgact	ggctgcggga	agctacttcc	120
tttcctttttg	gagatgattg	tgctattatt	gtttgccttg	ctctggatgg	tggaaggagt	180
cttttcccag	cttactaca	cggtagagga	ggagcaggaa	catggcactt	tcgtggggaa	240
tatcgctgaa	gatctgggtc	tggacattac	aaaactttcg	gctcgcgggt	ttcagacggt	300
gcccactca	aggaccctt	acttagacct	caacctggag	acaggggtgc	tgtacgtgaa	360
cgagaaaata	gaccgcgaac	aaatctgcaa	acagagcccc	tcctgtgtcc	tgacactgga	420
ggctctttctg	gagaaccccc	tggagctggt	ccaggtggag	atcgaggtgc	tggacattaa	480
tgacaacccc	ccctctttcc	cggagccaga	cctgacggtg	gaaatctctg	agagcgccac	540
gccaggcact	cgcttcccc	tggagagcgc	attcgaccca	gacgtgggca	ccaactcctt	600
gcgcgactac	gagatcacc	ccaacagcta	cttctccctg	gacgtgcaga	cccaggggga	660
tggcaaccga	ttcgctgagc	tgggtgctgga	gaagccactg	gaccgagagc	agcaagcggg	720
gcaccgctac	gtgctgaccg	cggtggacgg	aggaggtggg	ggaggagtag	gagaaggagg	780
gggaggtggc	gggggagcag	gcctgcccc	ccagcagcag	cgcaccggca	cgccctact	840
caccatccga	gtgctggact	ccaatgacaa	tgtgcccgt	ttcgaccaac	ccgtctacac	900
tgtgtcccta	ccagagaact	ctccccagg	cactctcgtg	atccagctca	acgccaccga	960
cccggacgag	ggccagaacg	gtgaggtcgt	gtactccttc	agcagccaca	tttcgccccg	1020
ggcgcgggag	cttttcggac	tctcgcccg	cactggcaga	ctggaggtaa	gcggcgagtt	1080
ggactatgaa	gagagcccag	tgtaccaagt	gtacgtgcaa	gccaaggacc	tgggccccaa	1140
cgcctgtcct	gcgcactgca	aggtgctagt	gcgagtactg	gatgctaata	acaacgcgcg	1200
agagatcagc	ttcagcaccg	tgaaggaagc	ggtagtgag	ggcgcggcgc	ccggcactgt	1260
ggtagccctt	ttcagcgtga	ctgaccgcga	ctcagaggag	aatgggcagg	tgcatgtcga	1320
gctactggga	gacgtgcctt	tccgcctcaa	gtcttccttt	aagaattact	acaccatcat	1380
taccgaagcc	cccctggacc	gagaggcggg	ggactcctac	accctgactg	tagtggctcg	1440
ggaccggggc	gagcctgcgc	tctccaccag	taagtgcata	caggtacaag	tgtcggatgt	1500
gaacgacaac	gcgcgcgctt	tcagccagcc	ggctctacgac	gtgtatgtga	ctgaaaacaa	1560
cgtgcctggc	gcctacatct	acgcggtgag	cgccaccgac	cgggatgagg	gcgccaacgc	1620
ccagcttgcc	tactctatcc	tcgagtggca	gatccagggc	atgagcgtct	tcacctacgt	1680
ttctatcaac	tctgagaacg	gctacttgta	cgcctgcgc	tccttcgact	atgagcagct	1740
gaaggacttc	agttttcagg	tggaaagccc	ggacgctggc	agcccccagg	cgctggctgg	1800
taacgccact	gtcaacatcc	tcatagtgga	tcaaaatgac	aacgcccctg	ccatcggtgg	1860
gcctctacca	gggcgcaacg	ggactccagc	gcgtgaggtg	ctgccccgct	cggcgaggcc	1920
gggttacctg	ctcaccgcgc	tggccgccgt	ggacgcggac	gacggcgaga	acgcccggct	1980
cacttacagc	atcgtgcgtg	gcaacgaaat	gaacctcttt	cgcattggact	ggcgaccggg	2040
ggagctgcgc	acagcacgcc	gagtcgccgc	caagcgcgac	ccccagcggc	cttatgagct	2100
ggtgatcgag	gtgcgcgacc	atgggcagcc	gcccccttcc	tcaccgcca	ccctggtggg	2160
tcagctggtg	gatggcgccg	tggagcccca	gggcgggggg	gggagcggag	gcgagggttc	2220
aggagagcac	cagcgcccca	gtcgctctgg	cggcggggaa	acctcgctag	acctcaccct	2280
catcctcctc	atcgcgctgg	gctcggtgtc	cttcatcttc	ctgctggcca	tgatcgtgct	2340
ggcgtgctg	tgccaaaaag	agaagaagct	caacatctat	acttgtctgg	ccagcgattg	2400
ctgcctctgc	tgctgtgctg	gcggtggcgc	aggttcgacc	tgctgtggcc	gccaagcccc	2460
ggcgcgcaag	aagaaactca	gcaagtccga	catcatgctg	gtgcagagct	ccaatgtacc	2520
cagtaacccg	gcccagggtc	cgatagagga	gtccgggggg	tttggctccc	accaccacaa	2580
ccagaattac	tgctatcagg	tatgcctgac	ccctgagctc	gccaagaccg	acctgatgtt	2640
tcttaagccc	cgcgagctac	cgcgagctac	ggacactgag	cacaacccct	gcggggccat	2700
cgtcacccgg	tacaccgacc	agcagcctga	tatcatctcc	aacggaagca	ttttgtccaa	2760
cgagactaaa	caccagcgag	cagagctcag	ctatctagtt	gacagacctc	gccgagttaa	2820
cagttctgca	ttccaggaag	ccgacatagt	aagctctaag	gacagtgggt	atggagacag	2880
tgaacagggg	gatagtgtac	atgatgccac	caaccgtgcc	cagtcagctg	gtatggatct	2940

```

cttctccaat tgcactgagg aatgtaaagc tctgggccac tcagatcggt gctggatgcc 3000
ttcttttgtc ccttctgatg gacgccaggc tgctgattat cgcagcaatc tgcattgtcc 3060
tggcatggac tctgttccag acactgaggt gtttgaaact ccagaagccc agcctggggc 3120
agagcgggtcc ttttccacct ttggcaaaga gaaggccctt cacagcactc tggagaggaa 3180
ggagctggat ggactgctga ctaatacgcg agcgccttac aaaccaccat atttgacacg 3240
gaaaaggata tgctagtcaa ttctacagga cttacctgaa gcagcatgat ttgcacaaag 3300
tcgaccaaca aaagcatcaa cttttcaact tcattatctt ggccatccag ttagtcatgt 3360
gtaactgagt attagatttc ggatggagtc atcatggcca attataggac ctaattgtct 3420
tcagcaggcc tgagaaatga gttgaaatgt gcagaactgt agaaacttta gaggcaacag 3480
atthttgcctc cccgatcagt gtgtgcctgt ttacagcact atctatcttt ctctctccaa 3540
atgtcactga gcccttttaga tgthttatatt caccacgaga agccagtcac aaagataaag 3600
gaaatthgtg cattataaat gcaatatcac tgthtttaaac ttgactgttt tatattattt 3660
ttgtgtgatc aagtgttccg caagctattc caactttaca agagaaattg tgattatgtt 3720
ctthttcacct gtgggttata aaaaatgttg tattctgaag acccacaanaa tatcaaagac 3780
attctgtagt ttatacaccg tgttgcaaaag tgthttactgt actatttcaa agctttctaaa 3840
taaatataaa atatatatat tatattaaaa a
3871

```

<210> 64

<211> 270

<212> DNA

<213> Homo sapiens

<400> 64

```

tcttgactg aatacattca aagaaccatc aagaaatggg gacctggatt ttatttgcct 60
gcctcctggg agcagctttt gccatgcctg tgcttacccc tttgaagtgg taccagagca 120
taaggccacc gccctgcct cccatgcttc ctgatctgac tctggaagct tggccatcaa 180
cagacaagac caagcgggag gaagtggatt aaaagatcag aagatgagag gggaatgaat 240
acttcagatg ctttcaggag tgacacaaga
270

```

<210> 65

<211> 318

<212> DNA

<213> Homo sapiens

<400> 65

```

tcttgactg aatacattca aagaaccatc aagaaatggg gacctggatt ttatttgcct 60
gcctcctggg agcagctttt gccatgcctc taccacctca tcctgggcac cctggttata 120
tcaacttcag ctatgaggtg cttaccctct tgaagtggta ccagagcata aggccaccgc 180
ccctgcctcc catgcttctc gatctgactc tggaagcttg gccatcaaca gacaagacca 240
agcgggagga agtggattaa aagatcagaa gatgagaggg gaatgaatac ttcagatgct 300
ttcaggagtg acacaaga
318

```

<210> 66

<211> 1216

<212> DNA

<213> Homo sapiens

<400> 66

```

cacggagcgc ctgacgggcc caacagaccc atgctgcac cagagacctc ccctggccgg 60
gggcatctcc tggctgtgct cctggccctc cttggcacca cctgggcaga ggtgtggcca 120
ccccagctgc aggagcaggc tccgatggcc ggagccctga acaggaagga gagtttcttg 180
ctcctctccc tgcacaaccg cctgcgcagc tgggtccagc cccctgcggc tgacatgcgg 240
aggctgctcg tgtgggccac ctcaagccag ctgggctgtg ggcggcacct gtgctctgca 300
ggccagacag cgatagaagc ctttgtctgt gcctactccc ccggaggcaa ctgggaggtc 360
aacgggaaga caatcatccc ctataagaag ggtgcctggg gttcgctctg cacagccagt 420

```

```

gtctcaggct gcttcaaagc ctgggacccat gcaggggggc tctgtgaggt ccccaggaat 480
ccttgctcgca tgagctgccca gaaccatgga cgtctcaaca tcagcacctg ccactgccac 540
tgtccccctg gctacacggg cagatactgc caagtgaggt gcagcctgca gtgtgtgcac 600
ggcgggttcc gggaggagga gtgctcgtgc gtctgtgaca tcggctacgg gggagcccag 660
tgtgccacca aggtgcattt tcccttccac acctgtgacc tgaggatcga cggagactgc 720
ttcatggtgt cttcagaggg agacacctat tacagagcca ggatgaaatg tcagaggaaa 780
ggcgggggtg tggcccagat caagagccag aaagtgcagg acatcctcgc cttctatctg 840
ggcgcgctgg agaccaccaa cgaggtgact gacagtgact tcgagaccag gaacttctgg 900
atcgggctca cctacaagac cgccaaggac tccttccgct gggccacagg ggagcaccag 960
gccttcacca gttttgcctt tgggcagcct gacaaccacg ggtttggcaa ctgctggag 1020
ctgcaggctt cagctgcctt caactggaac gaccagcgt gcaaaacccg aaaccgttac 1080
atctgccagt ttgccagga gcacatctcc cgggtggggc cagggctctg aggcctgacc 1140
acatggctcc ctgcctgcc ctaaggcgaa ttccagcacc tgcgccgtaa aaccgaggca 1200
gctcgaccac tgatcc                                     1216

```

<210> 67

<211> 1306

<212> DNA

<213> Homo sapiens

<400> 67

```

agcctccttt ctaacttgac cctcgccaga ccctggccag catggttgct ctgaatccaa 60
tgactttggg aatttatctt cagcttttct tcctctctat cgtgtctcag ccgactttca 120
tcaacagcgt tcttccaatc tcagcagccc tcccagcct ggatcagaag aagcgtggtg 180
gccacaaagc atgctgcctg ctgacgcctc ctccaccacc actgttccca ccaccattct 240
tcagaggtgg ccgaagtccg acatgaagaa tctcatgctg gaactggaga cctcgagctc 300
cccgtgcatg caaggtcgcg taggtcccc tgggcctccc ggcccccagg gtccaccggg 360
gcttcctggc aagacaggac caaagggaga aaagggtaga cctggcccc caggtgttcc 420
tggcatgcct gggcccatcg gttggccagg cctgaagga cccaggggtg aaaaagggtga 480
cctgggtatg atgggcttgc caggggtcaag aggaccaatg ggctccaagg gctaccctgg 540
atccagaggg gaaaagggat ccagaggtga aaagggtgac ctgggtccca aaggagaaaa 600
gggtttccca ggatttcctg gaatgttggg gcagaaaggt gaaatgggtc caaaagggtga 660
acctgggata gcaggacacc gaggacccac aggaagacca ggaaaacgag gcaagcaggg 720
acagaaaagg gatattggag ttatgggccc accaggcaag cctgggcctt ctggtcaacc 780
tggccgtccg gggccccacc tgcagatttt tgtggtcaac aaccaggagg 840
agcttgagag gctgaacacc caaaacgcca ttgccttcg cagagaccag agatctctgt 900
acttcaagga cagccttggc tggctcccca tccagctgac ccctttctac cctgtggatt 960
acactgcaga ccagcacggc acctgtgggg atgggtcct gcagcctggg gaggagtgtg 1020
acgacggtaa cagcgatgtg ggtgacgact gcacccgctg tcaccgtgcc tactgtggag 1080
atggtcaccg gcatgagggt gtggaggact gtgacggctc tgactttggc tacctgacat 1140
gcgagacctt tctccctggg tcatatggag acctgcaatg caccagtag tgctacatcg 1200
actccacgcc ctgccgttac ttcacctgag ggccgtgagg agaagggtgg ctgcgcccc 1260
cagaactggc agcagcttct ccactgtcat caaactggcc atgtcc                                     1306

```

<210> 68

<211> 1321

<212> DNA

<213> Homo sapiens

<400> 68

```

tagcctcctt tctaacttga ccctcgccag accctggcca gcatggttgt cctgaatcca 60
atgactttgg gaatttatct tcagcttttc ttctctctta tcgtgtctca gccgactttc 120
atcaacagcg ttcttccaat ctacagagcc cttcccagcc tggatcagaa gaagcgtggt 180
ggccacaaag catgctgcct gctgacgcct cctccaccac cactgttccc accaccattc 240
ttcagaggtg gccgaagtcc gcttctctcc ccagacatga agaattctcat gctggaactg 300
gagacctcgc agtccccgtg catgcaaggc tgcctaggct cccctgggccc tcccggcccc 360

```



```

caggggtccac cggggcttcc tggcaagaca ggaccaaagg gagaaaaggg tagacctggc 420
ccccagggtg ttcttgccat gcctgggccc atcggttggc caggccctga aggacccagg 480
ggtgaaaaag gtgacctggg tatgatggg ttgccagggt caagaggacc aatgggctcc 540
aagggtacc ctggatccag aggggaaaag ggatccagag gtgaaaaggg tgacctgggt 600
cccaaaggag aaaagggttt ccaggattt cctggaatgt tggggcagaa aggtgaaatg 660
ggtccaaaag gtgaacctgg gatagcagga caccgaggac ccacaggaag accaggaaaa 720
cgaggcaagc agggacagaa aggggatagt ggagtatatg gccaccagg caagcctggg 780
ccttctggtc aacctggccg tccggggccc ccaggccccc cacctgcaga tttttgtggt 840
caacaaccag gaggagcttg agaggctgaa cacccaaaac gccattgcct tccgcagaga 900
ccagagatct ctgtacttca aggacagcct tggctggctc cccatccagc tgacctttt 960
ctacctgtg gattacactg cagaccagca cggcacctgt ggggatgggc tcctgcagcc 1020
tggggaggag tgtgacgacg gtaacagcga tgtgggtgac gactgcatcc gctgtcaccg 1080
tgcctactgt ggagatggtc accggcatga ggggtgtggag gactgtgacg gctctgactt 1140
tggctacctg acatgcgaga cctatctccc tgggtcatat ggagacctgc aatgcacca 1200
gtactgttac atcgactcca cgccctgccg ctacttcacc tgagggccgt gaggagaagg 1260
tgggtcgcg cccacagaac tggcagcagc ttctccactg tcatcaaact ggccatgtcc 1320
a

```

```

<210> 69
<211> 676
<212> DNA
<213> Homo sapiens

```

```

<400> 69
tctcctcccc ggcatgcct ccgctctggg cctgctggc cctcggtgc ctgcggttcg 60
gctcggctgt gaacctgcag ccccaactgg ccagtgtgac ttctgccacc aacaacccca 120
cattaccac tgtggccttg gaaaagcctc tctgcatgtt tgacagcaaa gaggccctca 180
ctggcaccca cgaggtctac ctgtatgtcc tggctgactc aggttcaagt atgtcctggt 240
caatatgtcc acgggcttgg tagaggacca gacctgtgg tcggacccca tccgcacca 300
ccagctcacc ccatactcga cgatcgacac gtggccaggc cggcggagcg gaggcatgat 360
cgtcatcact tccatcctgg gctccctgcc cttctttcta cttgtgggtt ttgctggcgc 420
cattgccctc agcctcgtgg acatggggag ttctgatggg gaaacgactc acgactccca 480
aatcactcag gaggctgttc ccaagtgcgt gggggcctcg gagtcttctt acacgtccgt 540
gaaccggggg ccggcactgg acagggctga ggtgtattcc agcaagctcc aggactgagc 600
ccagcaccac cctgggcag cagcatcctc ctctctggcc ttgcccagg cctgcagcg 660
gtggttgtca caccca

```

```

<210> 70
<211> 1014
<212> DNA
<213> Homo sapiens

```

```

<400> 70
ccctggttgt gaaaatacat gagataaatc atgaaggcca ctatcatcct ccttctgctt 60
gcacaagttt cctgggcttg accgtttcaa cagagaggct tatttgactt tatgctagaa 120
gatgaggctt ctgggatagg ccagaagt cctgatgacc gcgacttoga gccctcccta 180
ggcccagtggt gccccttccg ctgtcaatgc catcttcgag tgggccagtg ttctgatttg 240
ggcattgatt cttgtcaaca ataaaattag caaagttagt cctggagcat ttacaccttt 300
ggtgaagttg gaacgacttt atctgtccaa gaatcagctg aagggaattgc cagaaaaaat 360
gccccaaact cttcaggagc tgcgtgcccc tgagaatgag atcaccaaag tgcgaaaagt 420
tactttcaat ggactgaacc agatgattgt catagaactg ggcaccaatc cgctgaagag 480
ctcagggaatt gaaaatgggg ctttccaggg aatgaagaag ctctctaca tccgcattgc 540
tgataccaat atcaccagca ttcctcaagg tcttctcct tcccttacg aattacatct 600
tgatggcaac aaaatcagca gagttgatgc agctagcctg aaaggactga ataatttggc 660
taagttggga ttgagtttca acagcatctc tgctgttgac aatggctctc tggccaacac 720
gcctcatctg agggagcttc acttgacaa caacaagctt accagagtac ctggtgggt 780

```

```

ggcagagcat aagtacatcc aggttgtcta cttcataac aacaatatct ctgtagttgg 840
atcaagtgac ttctgcccac ctggacacaa caccaaaagg cttcttattc ggggtgtgagt 900
cttttcagca acccggtcca gtactgggag atacagccat ccaccttcag atgtgtctac 960
gtgcgctctg ccattcaact cggaaactat aagtaattct caagaaagcc ctca 1014

```

<210> 71

<211> 991

<212> DNA

<213> Homo sapiens

<400> 71

```

aatcgtgatt gtcccatctg actcccatg aggtcctgg ctttcctgag tctgctggcc 60
ttggtgctgc aggagacagg gacagcttct ctcccaagga aggagaggaa gaggagagag 120
gagcagatgc ccagggaagg cgattccttt gaagttctgc ctctgcggaa tgatgtcctg 180
aaccagaca actatggtga agtcattgac ctgagcaact atgaggagct cacagattat 240
ggggaccaac tccccgaggt taaggtgact agcctcgctc ctgcaaccag catcagtccc 300
gccaagagca ctacggctcc agggacaccc tcgtcaaacc ccacgatgac cagacctact 360
acagcagggc tgctactgag ttcccagccc aaccatggtc tgcccacctg cctggtctgc 420
gtgtgcctcg gttcctctgt gtattgcgat gacattgacc tagaggacat tcctcctctt 480
cctcggagga ctgcctacct gtatgcacgc ttcaaccgca tcagccgtat cagggccgaa 540
gacttcaaag ggctgagacc tcatcctccc agagaaccag ttggaagctc tgcccgtgct 600
gcccagtggc attgagttcc tggatgtccg cctaaatcgg ctccagagct cggggatata 660
gcctgcagcc ttcagggcaa tggagaagct gcagttcctt tacctgtcag acaacctgct 720
ggattctatc ccggggcctt tgcccctgag cctgcgctct gtacacctgc agaataacct 780
gatagagacc atgcagagag acgtcttctg tgaccccgag gagcaciaaac acaccgcag 840
gcagctggaa gacatccgcc tggatggcaa ccccatcaac ctcagcctct tccccagcgc 900
ctacttctgc ctgcctcggc tcccacatcg ccgcttcacg tagctcggag cccttccact 960
cctcccaggt catctcttgg accagcgggc a

```

<210> 72

<211> 545

<212> DNA

<213> Homo sapiens

<400> 72

```

agcccgtgga gactgccaga gatgtcctct ttcggttaca ggaccctgac tgtggccctc 60
ttcacctga tctgctgtcc aggatcggat gagaaggtat tcgaggtaca cgtgaggcca 120
aagaagctgg cggttgagcc caaagggctc ctcgaggtca actgcagcac cacctgtaac 180
cagcctgaag tgggtggtct ggagacctct ctagataaga ttctgctgga cgaacaggct 240
cagtggaaac attacttggc ctcaaacatc tcccatgaca cggtcctcca atgccacttc 300
acctgtctcg ggaagcagga gtcaatgaat tccaacgtca gcgtgtacca gcctgtgtcg 360
gacagccaga tggatcatcat agtcacgggtg gtgtcggtgt tgctgtccct gttcgtgaca 420
tctgtcctgc tctgcttcat cttcggccag cacttgcgcc agcagcggat gggcacctac 480
ggggtgcgag cggcttgagg gaggtgccc caggccttcc ggccatagca accatgagtg 540
gcata

```

<210> 73

<211> 831

<212> DNA

<213> Homo sapiens

<400> 73

```

tctcctcccg ggcgatgcct ccgctctggg cctgctggc cctcggctgc ctgcggttcg 60
gctcggctgt gaacctgcag cccaactgg ccagtgtgac tttcgccacc aacaaccca 120
cacttaccac tgtggccttg gaaaagcctc tctgcatgtt tgacagcaaa gaggcctca 180

```

ctggcacc	cgaggtct	ctgtatgt	tggtcgact	agtgacct	ccagcctg	240
tgccattg	gatgtgtc	aggcctca	gatcctga	gcctacct	tcaggggt	300
tgccaacg	acctgcct	gggatccca	cttccaggg	ctctgtaac	cacctctg	360
ggcagccac	gagtagag	tcaagtat	cctgggtca	atgtccacg	gcttggtag	420
ggaccagac	ctgtggct	accccatcc	caccaacc	ctcacccat	actcgacga	480
cgacacgt	ccaggccgg	ggagcggag	catgatcgt	atcacttcc	tcctgggct	540
cctgccctt	tttctact	tgggttttg	tggcgccat	gccctcagc	tcgtggacat	600
ggggagttt	gatgggaaa	cgactcacg	ctcccaaata	actcaggag	ctgttcccaa	660
gtcgtctgg	gcctcggag	cttcctacac	gtccgtgaac	cgggggccg	cactggacag	720
ggctgaggt	tattccagca	agctccagga	ctgagccag	caccacctg	ggcagcagca	780
tcctcctct	tggccttgcc	ccaggccctg	cagcggtggt	tgtcacaccc	a	831

<210> 74

<211> 888

<212> DNA

<213> Homo sapiens

<400> 74

tatgggggt	ctgttccct	tgtcgctgt	gtttttttt	gcggccgcct	acccgggagt	60
tgggagcg	ctgggagcc	ggactaagc	ggcgcaaagc	cccaagggt	gccctctcgc	120
gccctccgg	acctcagtg	ccttctgggt	gcgcataaac	ccggagttcg	tggctgtgca	180
gccggggaag	tcagtgcag	tcaattgcag	caacagctgt	ccccagccgc	agaattccag	240
cctccgcacc	ccgctcggc	aaggcaagac	gctcagaggg	ccgggttggg	tgtcttacca	300
gctgctcgac	gtgagggcct	ggagctccct	cgcgcactgc	ctcgtgacct	gcgcaggaaa	360
aacacgctgg	gccacctcca	ggatcaccgc	ctacagtgtt	cccgggtggc	tacttggtgg	420
tgaccctgag	gcatggaagc	cgggtcatct	attccgaaag	cctggagcgc	ttcaccggcc	480
tggatctggc	caacgtgacc	ttgacctacg	agtttgctgc	tggaccccg	gacttctggc	540
agcccgtgat	ctgccacgc	cgcctcaatc	tcgacggcct	ggtggtccgc	aacagctcgg	600
caccattac	actgatgctc	ggtgaggcac	cctgttaacc	ctggggacta	ggaggaagg	660
ggcagagaga	gttatgacct	cgagagggcg	cacagaccaa	gcgtgagctc	cacgcgggtc	720
gacagacctc	cctgtgttcc	gttcctaatt	ctgccttct	gctcccagct	tggagccccg	780
cgcacacagc	tttggcctcc	ggttccatcg	ctgcccttgt	agggatcctc	ctcactgtgg	840
gcgctgcgta	cctatgcaag	tgcctagcta	tgaagtccca	ggcgtaaa		888

<210> 75

<211> 795

<212> DNA

<213> Homo sapiens

<400> 75

tatgaggaga	tgggcctgtt	gctcctggtc	ccgttggctc	tgctgcccg	ctcctacgga	60
ctgcccttct	acaacggctt	ctactactcc	aacagcgcca	acgaccagaa	cctaggcaaac	120
ggtcatggca	aagacctcct	taatggagtg	aagctgggtg	tggagacacc	cgaggagacc	180
ctgttcacct	accaaggggc	cagtgtgata	ctgccctgcc	gctaccgcta	cgagccggcc	240
ctgggtctccc	cgcggcgtgt	gcgtgtcaaa	tgggtggaagc	tgctcgagaa	cggggcccca	300
gagaaggacg	tgctggtggc	catcgggctg	aggcaccgct	cctttgggga	ctaccaaggc	360
cgcgtgcacc	tgccggcagga	caaagagcat	gacgtctcgc	tggagatcca	ggatctgcgg	420
ctggaggact	atgggcgtta	ccgctgtgag	gtcattgacg	ggctggagga	tgaaaagcgg	480
ctggtggagc	tggagctgcg	ggggcgggtg	tactacctgg	agcaccctga	gaagctgacg	540
ctgacagagg	caagggaggg	ctgccaggaa	gatgatgcca	cgatcgccaa	ggtgggacag	600
ctctttgccc	cctggaagtt	ccatggcctg	gaccgctgcg	acgctggctg	gctggcagat	660
ggtagcgtcc	gctaccctgt	ggttcacccg	catacctaact	gtgggcccc	agagcctggg	720
gtccgaagct	ttggcttccc	cgacccgcag	agccgcttgt	acggtgttta	ctgctaccgc	780
cagcactagg	accta					795

<210> 76
 <211> 1174
 <212> DNA
 <213> Homo sapiens

<400> 76
 tagggagggc catgatttcc ctcccggggc ccctgggtgac caacttgctg cggtttttgt 60
 tcctgggggt gagtgccttc gcgccccct cgcggggcca gctgcaactg cacttgcccg 120
 ccaaccggtt gcaggcggtg gagggagggg aagtgggtgct tccagcgtgg tacacctgc 180
 acggggaggt gtcttcatcc cagccatggg aggtgccctt tgtgatgtgg ttcttcaaac 240
 agaaagaaaa ggagggtcag gtgttgcctt acatcaatgg ggtcacaaca agcaaacctg 300
 gagtatcctt ggtctactcc atgccctccc ggaacctgtc cctgcggtg gagggctctcc 360
 aggagaaaga ctctggcccc tacagctgct ccgtgaatgt gcaagacaaa caaggcaaat 420
 ctaggggcca cagcatcaaa accttagaac tcaatgtact ggggtgtgcc ccatgtgggg 480
 gcaaacgtga ccttgagctg ccagtctcca aggagtaagc ccgtgttcca ataccagtgg 540
 gatcggcagc ttccatcctt ccagactttc ttgaccag cattagatgt catccgtggg 600
 tctttaagcc tcaccaacct ttctgtctcc atggctggag tctatgtctg caaggcccac 660
 aatgaggtgg gcaactgcca atgtaatgtg acgctggaag tgagcacagg gcctggagct 720
 gcagtgggtg ctggagctgt tgtgggtacc ctggttggac tggggttgct ggctgggctg 780
 gtctcttctg accaccgccc gggcaaggcc ctggaggagc cagccaatga tatcaaggag 840
 gatgccattg ctccccggac cctgccttgg cccaagagct cagacacaa ctccaagaat 900
 gggacccttt cctctgtcac ctccgcacga gccctccggc caccctatgg cctcccagg 960
 cctggtgcat tgacccccac gccagtctc tccagccagg cctgcccctc accaagactg 1020
 cccacgacag atggggccca cctcaacca atatcccca tccctgggtg ggtttcttcc 1080
 tctggcttga gccgcatggg tgctgtgcct gtgatggtgc ctgcccagag tcaagctggc 1140
 tctctggtat gatgacccca cactcattg gcta 1174

<210> 77
 <211> 1159
 <212> DNA
 <213> Homo sapiens

<400> 77
 tctgagggcc actgtggagc gccccgccat ggccccccgc accctctgga gctgctacct 60
 ctgctgcctg ctgacggcag ctgcaggggc cgccagctac cctcctcgag gtttcagcct 120
 ctacacaggt tccagtgggg cctcagccc cggggggccc caggcccaga ttgcccccg 180
 gccagccagc cgccacagga actggtgtgc ctacgtggtg acccgacag tgagctgtgt 240
 ccttgaggat ggagtggaga catatgtcaa gtaccagcct tgtgcctggg gccagcccca 300
 gtgtcccaa agcatcatgt accgccgctt cctccgccct cgctaccgtg tggcctacaa 360
 gacagtgacc gacatggagt ggaggtgctg tcagggttat gggggcgatg actgtgctga 420
 gagtcccgct ccagcgtgg ggctgctgc ttccacacca cggcccctgg cccggcctgc 480
 ccgccccaac ctctctggct ccagtgcagg cagccccctc agtggactgg ggggagaagg 540
 gcctgcagga gaggtgggc ccccagggcc tcttgggctg cagggacccc caggccctgc 600
 tggacctcca ggatcaccag gcaaggacgg gcaagagggc cccatcgggc caccaggtcc 660
 tcaaggtgaa cagggagtgg agggggcacc agcagcccct gtgccccaa tggcattttc 720
 agctgctctg agtttgcccc ggtctgaacc aggcacggtc cccttcgaca ggtcctgct 780
 caatgatgga ggctattatg atccagagac aggcgtgttc acagcgccac tggctggacg 840
 ctacttgctg agcgcggtgc tgactgggca ccggcacgag aaagtggagg ccgtgctgtc 900
 ccgctccaac cagggcgtgg cccgcgtaga ctccggtggc tacgagcctg agggcctgga 960
 gaataagccg gtggccgaga gccagcccag cccgggcacc ctgggcgtct tcagcctcat 1020
 cctgccgctg cagggccggg acacggctct cgctgacctg gtcattgggg agctggcgca 1080
 ctcgaggagg ccgctacca tcttcagcgg ggccctgctc tatggggacc cagagcttga 1140
 acacgcgtag actggggtgta 1159

<210> 78
 <211> 813
 <212> DNA
 <213> Homo sapiens

<400> 78
 tgcccctaac aggctgttac ttactacaa ctgacgatat gatcatctta atttacttat 60
 ttctcttgct atgggaagac actcaaggat ggggattcaa ggatggaatt tttcataact 120
 ccatatggct tgaacgagca gccggtgtgt accacagaga agcacggtct ggcaaataca 180
 agctcaccta cgcagaagct aaggcgggtgt gtgaatttga aggcggccat ctcgcaactt 240
 acaagcagct agaggcagcc agaaaaattg gatttcatgt ctgtgctgct ggatggatgg 300
 ctaagggcag agttggatac ccattgtgtga agccagggcc caactgtgga tttggaaaaa 360
 ctggcattat tgattatgga atccgtctca ataggagtga aagatgggat gcctattgct 420
 acaaccacaca cgcaaaggag tgtggtggcg tctttacaga tccaaagcaa atttttaaat 480
 ctccaggctt cccaaatgag tacgaagata accaaatctg ctactggcac attagactca 540
 aatactgttg agatgagctt ccagatgaca tcatcagtac aggaaatgtc atgaccttga 600
 agttttctaag tgatgcttca gtgacagctg gaggtttcca aatcaaatat gttgccatgg 660
 atcctgtatc caaatccagt caaggaaaaa ataccagtac tacttctact ggaaataaaa 720
 acttttttagc tggaagattt agccacttat aaaaaaaaaa aaaaggatga tcaaaacaca 780
 cagtgtttat gttggaatct tttggaactc ctt 813

<210> 79
 <211> 503
 <212> DNA
 <213> Homo sapiens

<400> 79
 tgcgagatgc tgctgattct gctgtcagtg gccctgctgg ccctgagctc agctgagagt 60
 gcaagtgaag atgtcagcca ggaagaatct ctcttcctaa tatcaggaaa gccagaagga 120
 cgacgcccac aaggaggaaa ccagccccaac cgtccccac ctctccagg aaagccacaa 180
 ggaccacccc cacaaggagg aaaccagtc ccaaggtccc cacctcctcc aggaaagcca 240
 gaaggaccac cccacagga aggaaacaag tcccgaagtg ccgatctcc tccaggaaag 300
 ccacaaggac caccacaaca agaaggcaac aagcctcaag gtccccacc tcttggaag 360
 ccacaaggcc caccaccacc aggaggcaat cccagcagc ctgaggcacc tctgtctgga 420
 aagccccagg ggccacctcc acctcctcaa gggggcaggc caccagacc tgcccaggga 480
 caacagcctc cccagtaatc taa 503

<210> 80
 <211> 805
 <212> DNA
 <213> Homo sapiens

<400> 80
 tatgagtaaa caaagaggaa ccttctcaga agtgagtctg gccaggacc caaagcggca 60
 gcaaaggaaa cctaaaggca ataaaagctc catttcagga accgaacagg aaatattcca 120
 agtagaatta aatcttcaaa atccttcctt gaatcatcaa gggattgata aaatatatga 180
 ctgccaaggt ttactgccac ctccagagaa gctcactgcc gaggtcctag gaatcatttg 240
 cattgtcctg atggccactg tgttaaaaaa aatagttctt attcctttcc tggagcagaa 300
 caattcttcc ccgaatacaa gaacgcagaa agcacgtcat tgtggccatt gtcttgagga 360
 gtggattaca tattccaaca gttgttatta cattggtaag gaaagaagaa cttgggaaga 420
 gagtttgctg gcctgtactt cgaagaactc cagtctgctt tctatagata atgaagaaga 480
 aatgaaattt ctggccagca ttttaccttc ctcatggatt ggtgtgtttc gtaacagcag 540
 tcatcatcca tgggtgacaa taaatggttt ggctttcaaa cataatacat ggaaaatgct 600
 ttcgtctcat gaatcatttg cttaaaatgt aacagaaaat ggatttttct ccattacagg 660
 ataaaagact cagataatgc tgaacttaac tgtgcagtcg tacaagtaaa tcgacttaaa 720
 tcagcccagt gtggatcttc aatgatatat cattgtaagc ataagcttta gaagtaaagc 780

gtttgcattt gcagtgcac agata

805

<210> 81

<211> 3140

<212> DNA

<213> Homo sapiens

<400> 81

```

gctcgtcct tctcgtcccc cgccccctcg ccgcgcgggg ccagcccggc cgctcctccc 60
ctgggtgggt cctcgtcctt tttctggcag ggtctatttg catagaggaa actgccccaa 120
gtggccgctg tggaggagct ggctgcggcg aagggggcgt gcgcggcgat ccgctgctac 180
ccggaggcta acccccgcgc ccggcggacc tcgtgcctcg ggctgtcccg cctgctcctc 240
tcgcacccag cctctgcccc agcagcaccg cccctcgga gactccacgc gcgacgaacg 300
cgccatgggc ccaggcgagc gcgcgggtgg cggcggcgac gcggggaagg gcaatgcggc 360
ggcgggcggc ggcggagggc gctcggcgac gacggccggg tcccgggcgg tgagcgcgct 420
gtgcctgctg ctctccgtgg gctcggcggc tgctgctggg tccaggcggc 480
cgcgctgcag ggccgggtgg cggcgctcga ggaggagcgg gagctgctgc ggcgcgcggg 540
gccgccaggc gccctggacg cctgggcca gccgcacctg gagcgctgc tcggggagaa 600
gttgagcga ctagcgaaga tccggactgc tcgggaagct ccatccgaat gtgtctgccc 660
cccagggccc cctggacggc gcggcaagcc tgggagaaga ggcgaccctg gtcctccagg 720
gcaatcagga cgagatggct acccgggacc cctgggtttg gatggcaagc ccggaacttc 780
aggcccgaaa ggggaaaagg gagaccaagg acaagatgga gctgctgggc ctccgggggc 840
ccttggaact cctggggccc ggggccctcc tggcgacact gggaaagatg gccccagggg 900
agcaciaaag ccagcggggc ccaaaggaga gcccggaaca gacggcgaga tgggccccaa 960
gggacccccca gggcccaagg gtgagcctgg agtacctgga aagaagggcg acgatgggac 1020
accaagccag cctggaccac cagggcccaa gggcgagcca gggagcatgg ggcctcgggg 1080
agagaacggg gtggacgggt cccaggacc gaaaggggag cctggccacc gaggcacgga 1140
tggagctgca gggccccggg gtgccccagg cctcaagggc gagcagggag acacagtgtt 1200
gatcgactat gatggcagga tcttggatgc cctcaagggg cctcccgga cacaggggcc 1260
cccagggcca ccagggatcc ctggagccaa gggcgagctt ggattgcccc gtgccccagg 1320
aatcgatgga gagaagggcc ccaaaggaca gaaaggagac ccaggagagc ctgggcccagc 1380
aggactcaaa ggggaagcag gcgagatggg cttgtccggc ctcccgggcg ctgacggcct 1440
caagggggag aagggggagt cggcgtctga cagcctacag gagagcctgg ctgagctcat 1500
agtggagcca gggccccctg gggccccctg atggagcaaa gggagagaag ggtgcgtcgg gtgagagagc 1620
ccagggtccc ctgctggggc cagttggccc accgggcctt attgggctgc caggaaccaaa 1680
cccagcgagg ggcagacccg gggagccagg actagatggt ttccctggac cccgaggaga 1740
gaaaggtgat cggagcagag gtggagagaa gggagaacga ggggtccccg gccggaagg 1800
agtgaagggc cagaagggcg agccgggacc accaggcctg gaccagccgt gtcccgtggg 1860
cccgcacggg ctgcctgtgc ctggctgctg gcataagtga cccacaggcc cagctcacac 1920
ctgtacagat ccgtgtggac atttttaatt tttgtaaaaa caaacagta atatattgat 1980
cttttttcat ggaatgcgct acctgtggcc ttttaacatt caagagtatg cccaccagc 2040
cccaaagcca ccggcatgtg aagctgccgg aaagtggaca ggccagacca gggagatgtg 2100
tacctgaggg gcacccttgg gcttgggctt tcccaggaag gagatgaagg tagaagcacc 2160
tggctcgggc aaggctagaa agatgctacg ttgggccttc agtcacctga tcagcagaga 2220
gactctcagc tgtgtactg ccctgtaaga acctgctccc gcaaaactct ggagtccctg 2280
ggacacaccc tatccaagaa gacccagggg tggaaacagc gctgctgttg ctctggcct 2340
catcagcctc caaactcaac cacaaccagg tgccctcgca gttggacaag acttggcccc 2400
cggacaagac tcgcccagca cttgcggctg gggccgggga gcagtgagt gaaatcccc 2460
acgaggggtc agctctacca cattcaggag gcctcaggag gccagcctgc catgagagca 2520
catgtcctct ggccaggagt agtggctgag ctctgtgatc gctgtgatgt ggaccagct 2580
ccagggagca gactgtcggg gatggagggg cccagcctgg actgactgct acttctgtc 2640
tctgtttcca ttatcccca gagagggaca agataggaca tggcctggac cagggaggca 2700
ggcctcagga ggccagcctg ccagagagc acatgtctc tggccaggag tagtgctga 2760
gctctgtgat cgctgtgatg tggacccagc tccagggagc agagtgtcgg ggatggaggg 2820
gccagcctg gactgactgc tacttctctg ctctgtttcc attatcccc agagaggggac 2880
aagataggac atggcctgga ccagggaggc aggcctccca ctcagaatct gggctcctact 2940

```

ggccccaagt	ctcccaccca	gaactctggc	caaaaatggc	tctctaggtg	ggctgtgcag	3000
gcaaagcaaa	gctcagggct	ggttcccagc	tggcctgagc	agggggcctg	ccaccagacc	3060
caccacgctc	tgacgagagg	cttttccacc	tccagcaagt	gttcccagca	accagataac	3120
aatccgggct	gctgcctcca					3140

<210> 82

<211> 1119

<212> DNA

<213> Homo sapiens

<400> 82

tataaagcgg	gacctcctct	ctggtagagg	tgcaggggca	gtactcaaca	tgatcacaga	60
gggagcgcag	gcccctcgat	tgttgctgcc	gccgctgctc	ctgctgctca	ccctgccagc	120
cacaggctca	gaccccgctc	tctgcttcac	ccagtatgaa	gaatcctccg	gcaagtgcaa	180
gggcctcctg	gggggtgggtg	tcagcgtgga	agactgctgt	ctcaacactg	cctttgccta	240
ccagaaacgt	agtggtgggc	tctgtcagcc	ttgcagggtcc	ccacgatggg	ccctgtggtc	300
cacatggggc	ccctgttcgg	tgacgtgctc	tgagggctcc	cagctgcggg	accggcgctg	360
tgtgggctgg	aatgggcagt	gctctggaaa	ggtggcacct	gggacctggg	agtggcagct	420
ccaggcctgt	gaggaccagc	agtgtgtgtc	tgagatgggc	ggctgggtctg	gctggggggc	480
ctggggagcct	tgctctgtca	cctgtctcaa	agggacctcg	acccgcaggc	gagcctgtaa	540
tcacctgtgt	cccaagtgtg	ggggccactg	cccaggacag	gcacaggaat	cagaggcctg	600
tgacaccagc	caggtctgcc	ccatggatgg	ggagtgggac	tcgtgggggg	agtggagccc	660
ctgtatccga	cggaaatga	agtccatcag	ctgtcaagaa	atcccggggc	agcagtcacg	720
cgggaggacc	tgcagggggc	gcaagtgtga	cggacatcga	tgtgccgggc	aacagcagga	780
tatccggcac	tgctacagca	tccagcactg	ccccttgaaa	ggatcatggg	cagagtggag	840
tacctggggg	ctgtgcatgc	ccccctgtgg	acctaatcct	acccgtgccc	gccagcgctc	900
ctgcacaccc	ttgtctccca	agtaccggcc	caccgtttcc	atgggtcgaag	gtcagggcga	960
gaagaacgtg	accttctggg	ggagaccgct	gccacgggtg	gaggagctac	aagggcagaa	1020
gctgggtggg	gaggagaaac	gacctgtgtc	acacgtgcct	gcttgcaaag	accctgagga	1080
agaggaactc	taacacttct	ctcctccact	ctgagccca			1119

<210> 83

<211> 1319

<212> DNA

<213> Homo sapiens

<400> 83

tagaagccgg	gagcttccct	gatggtgccg	ccgcctccga	gccggggagg	agctgccagg	60
ggccagctgg	gcaggagcct	gggtccgctg	ctgctgctcc	tggcggttggg	acacacgtgg	120
acctacagag	aggagccgca	ggacggcgac	agagaaatct	gctcagagag	caaaatcgcg	180
acgactaaat	acccgtgtct	gaagtcttca	ggcgagctca	ccacatgcta	caggaaaaag	240
tgctgcaaag	gatataaatt	tgttcttggg	caatgcaccc	cagaagatta	cgacgtttgt	300
gccgaggctc	cctgtgaaca	gcagtgcacg	gacaactttg	gccgagtgtc	gtgtacttgt	360
tatccgggat	accgatatga	ccgggagaga	caccgggaagc	gggagaagcc	atactgtctg	420
gatattgatg	agtgtgccag	cagcaatggg	acgctgtgtg	cccacatctg	catcaatacc	480
ttgggcagct	accgtgcca	gtgccgggaa	ggctacatcc	gggaagatga	tgggaagaca	540
tgtaccaggg	gagacaaata	tcccaatgac	actggccatg	agaagtctga	gaacatgggtg	600
aaagccggaa	cttgtgtgtc	cacatgcaag	gagttctacc	agatgaagca	gaccgtgctg	660
cagctgaagc	aaaagattgc	tctgtctccc	aacaatgcag	ctgacctggg	caagtatatc	720
actggtgaca	aggtgtgtgg	ctcaaaccac	taccttccag	gacctcctgg	cctgcctggg	780
ggccaggggc	ctcccggctc	accaggacca	aagggaagcc	caggcttccc	cggtatgcca	840
ggccctcctg	ggcagcccg	cccacggggc	tcaatgggac	ccatgggacc	atctcctgat	900
ctgtccca	ttaagcaagg	ccggaggggc	cctgtgggtc	caccaggggc	accaggaaag	960
gatggttcta	agggggagag	aggagcgctc	gggcccagag	ggtctccagt	aagtagcact	1020
ctgtgtcctg	cttcccagc	ggaacgttct	cagggatgca	gctctgatga	gcctataggg	1080
acccctgggt	tctttcgact	tctgtctact	tatgtgtggc	gacatccgca	atgacatcac	1140

```

tgagctgcag gaaaagggtgt tcgggcaccg gactcactct tcagcagagg agttcccttt 1200
acctcaggaa tttcccagct acccagaagc catggacctg ggctctggag atgaccatcc 1260
aagaagaact gagacaagag acttgagagc cccagagac ttctacccat gcacatcca 1319

```

<210> 84

<211> 1212

<212> DNA

<213> Homo sapiens

<400> 84

```

tagcctcctt tctaacttga ccctcgccag accctggcca gcatggttgt cctgaatcca 60
atgacttttg gaatttatct tcagcttttc ttctctcta tcgtgtctca gccgactttc 120
atcaacagcg ttcttccaat ctccagagcc cttcccagcc tggatcagaa gaagcgtggt 180
ggccacaaaag catgctgcct gctgacgct cctccaccac cactgttccc accaccattc 240
ttcagaggtg gccgaagtcc gggtccaccg gggcttcctg gcaagacagg accaaaggga 300
gaaaaggggg agcttggccg accaggaagg aagggtagac ctggccccc aggtgttcct 360
ggcatgcttg ggcccatcgg ttggccaggc cctgaaggac ccaggggtga aaaagggtgac 420
caggggatga tgggcttgcc agggtaaga ggaccaatgg gctccaaggg ctaccctgga 480
tccagagggg aaaagggatc cagaggtgaa aagggtggcc tgggtcccaa aggagaaaag 540
ggtttcccag gatttccttg aatgttgggg cagaaagggt gaatgggtcc aaaagggtgaa 600
cctgggatag caggacaccg aggaccaca ggaagaccag gaaaacgagg caagcaggga 660
cagaaagggg atagtggagt tatgggcca ccaggcaagc ctgggccttc tggtaaacct 720
ggcgtccgg ggcccccagg cccccacct gcagattttt gtggtcaaca accaggagga 780
gcttgagagg ctgaacaccc aaaacgccat tgccttcgc agagaccaga gatctctgta 840
cttcaaggac agccttggct ggctcccat ccagaccagc acggcacctg tggggatggg 900
ctcctgcagc ctggggagga gtgtgacgac ggtaacagcg atgtgggtga cgactgcac 960
cgctgtcacc gtgcctactg tggagatggc caccggcatg aggggtgtgga ggactgtgac 1020
ggctctgact ttggctacct gacatgcgag acctatctcc ctgggtcata tggagacctg 1080
caatgcaccc agtactgcta catcgactcc acgccctgcc gctacttcac ctgagggccg 1140
tgaggagaag gtgggctgcg cccacagaa ctggcagcag cttctccact gtcataaac 1200
tggccatgtc ca                                     1212

```

<210> 85

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic 6x
His tag

<400> 85

His His His His His His

1

5